


1981

## College of Technology, Bolton Street Prospectus 1981-82

City of Dublin Vocational Education Committee

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DUBLIN  
INSTITUTE  
OF  
TECHNOLOGY

COLLEGE OF TECHNOLOGY

**BOLTON ST.**

DUBLIN 1

**PROSPECTUS**

**1981 - 82**

CITY OF DUBLIN VOCATIONAL  
EDUCATION COMMITTEE

# CALENDAR-SESSION 1981-82

SEPT. Tuesday 1st	Commencement of Session Interviews for Wholetime Day Courses Commence Applicants will be notified of the exact date and time of Interview Day Release Courses for Apprentices commence Interviews and enrolments for Part-time and Evening Courses commence.
Monday 7th	
Monday 21st	Wholetime courses commence except where otherwise arranged. Evening Classes commence.
OCT Wednesday 7th Monday 26th Friday 30th	Votive Mass. All classes closed. Public Holiday. College closed Final date for enrolment.
DEC Tuesday 8th Friday 18th	Church Holiday. All classes closed. Final class meetings before Christmas vacation.
JAN Monday 4th Wednesday 6th	All classes resume after Christmas vacation. Church Holiday. All classes closed
MAR Wednesday 17th Friday 19th Monday 29th	Public Holiday. College closed. Final class meetings before Spring Break. All classes resume after Spring Break.
APR Thursday 8th Friday 9th Monday 12th	All classes closed for Easter All classes closed. Public Holiday. College closed.
MAY Thursday 20th	Church Holiday. All classes closed.
JUNE Thursday 3rd Monday 7th Friday 18th	Church Holiday. All classes closed. Public Holiday. College closed. All classes terminate except where otherwise arranged.

## \*BLOCK RELEASE DATES

TERM 1 - 1981	28th September, 1981 - 11th December 1981
TERM 2 - 1982	4th January, 1982 - 19th March, 1982
TERM 3 - 1982	29th March, 1982 - 11th June, 1982

\*Special arrangements will be made for apprentices in the Printing Trade

THE ABOVE DATES MAY BE ALTERED WITHOUT NOTICE

# RÉAMHEOLAIRE 1981-82

COISTE GAIRM - OIDEACHAIS CHATHAIR BHAILE ÁTHA CLIATH CITY OF DUBLIN VOCATIONAL EDUCATION COMMITTEE

INSTITIÚD TEICNEOLAÍOCHTA BHAILE ÁTHA CLIATH DUBLIN INSTITUTE OF TECHNOLOGY

COLAISTE TEICNEOLAIOCHTA COLLEGE OF TECHNOLOGY

SRÁID BHOLTÚIN BOLTON STREET  
BHAILE ÁTHA CLIATH 1 DUBLIN 1

## Offices

College of Technology Bolton Street Dublin 1 Phone 749913  
Annex Longford House Little Longford Street Dublin 2 Phone 751183  
Schools of Trades Yarnhall Street Dublin 2 Phone 751183  
Annex 23- 27 Beresford Street Dublin 7 Phone 741420

Principal : MICHAEL O' DONNELL  
BE , BComm, MEconSc, CEng, FIEI, MIProdE

# PROSPECTUS 1981- 82



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## CITY OF DUBLIN VOCATIONAL EDUCATION COMMITTEE

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 Alderman Pat Carroll, 44 Arklow Street, Dublin 7.  
 Mr. Lauri Corcoran, 1 Errigal Road, Dublin 12.  
 Councillor Mary Flaherty T.D., 111 Sycamore Road, Dublin 11.  
 Mr. Thomas Holt, Principal, Vocational School, Kylemore Road, Ballyfermot Dublin 10.  
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 Mr. Charles McManus, 12 Walkinstown Drive, Dublin 12.  
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 Councillor Mary Robinson, 27 Merrion Square, Dublin 2.  
 Alderman Eugene Timmons, 42 Copeland Avenue, Dublin 3.

Chief Executive Officer: W.J. Arundel B.Comm, H. Dip.Ed.  
 Offices: Town Hall, Ballsbridge, Dublin 4.

## COLLEGE OF TECHNOLOGY, BOLTON STREET

### College Council:

Mr. Patrick Donegan (Chairman), 121 Shanard Road, Santry, Dublin 9.  
 Mr. Michael O'Donnell, Principal  
 Mr. Thomas Breen, 38 Innis Fallan Parade, Dublin 7  
 Mr. Kevin Byrne, 62 St. Mary's Road, East Wall, Dublin 3.  
 Mr. Kevin Duffy, 49 Cuffe Street, Dublin 2.  
 Mr. Thomas Graham Students' Union Representative.  
 Mr. Anthony Harkin, 52 Farney Park, Dublin 4.  
 Dr. Patrick McCormack, Teaching Staff Representative.  
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 Councillor Gay Mitchell, Irish Permanent House, 7 Grattan Crescent, Dublin 8.  
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 Mr. Morgan Sheehy, c/o Ove Arup and Partners, 10 Wellington Road, Dublin 4.



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Mr. Thomas Conway, College of Technology, Kevin Street, Dublin 8  
Mr. H. de Lacy Director  
Mr. Denis Harley, College of Technology, Kevin St., Dublin 8.  
Mr. Thomas Holt, Principal Vocational School, Ballyfermot, Dublin 10  
Mr. Desmond Fay, 23 Harcourt Street, Dublin 2.  
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Mr. D. McCaughey, 25 Louvain, Ardilea, Dublin 14.  
Mr. Charles McManus, 12 Walkinstown Drive, Dublin 12.  
Mr. Gay Mitchell, Irish Permanent House, 7 Grattan Crescent, Dublin 8.  
Mr. James O'Keeffe, 138 Sundrive Road, Crumlin, Dublin 12.

Offices: 14 Upper Mount Street, Dublin 2

Director: Mr. H. de Lacy, B.E., B.Sc., C.Eng., F.I.E.E.

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J. Hegarty, Dip Hotel Management, MIHCI, MCFA.

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Noreen O'Neill, BA, BMus, LRAM, ARIAM.  
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G. L. Latchford, BE, BSc, CEng, MIEI.  
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T. Madden, BComm, FIMA, FIIF, MMII, MIITM.  
F. McMahon, BComm, MBA, MIHCI.  
Michael Murphy, Dip.Eng., MSc., C.Eng, MIMechE  
J. Nunan, BSc, HDipEd.  
P. B. Ó hAnnaigh, BSc, MSc, PhD, MInstP.  
J. O'Byrne, MCIOB, MCSI  
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E. J. Rothery, BSc, CChem, FRIC, FICI, MIBiol.  
T. Short, PhD, CEng, MIEE.  
Kathleen M. Tierney, MA.

*Academic Registrar:* F. M. Brennan, CEng., MIERE, AMIEE.



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## Institiúid Teicneolaíochta Bhaile Átha Cliath AN COLÁISTE TEICNEOLAÍOCHTA SRAID BHOLTUÍN

Is cuid d'Institiúid Teicneolaíochta Bhaile Átha Cliath an Coláiste seo. Cuirtear an t-Institiúid ar bun sa bhliain 1978 chun na coláistí den triú leibhéal atá faoi chúram Choiste Gairm-oideachais Cathair Átha Cliath a chomhnascadh. San Institiúid tá breis is 1,500 foireann teagaisc agus 20,000 mac léinn.

Tá an Coláiste seo faoi stiúir ag Comhairle an Choláiste, fo-choiste den Choiste Gairm-oideachais Tá ceithre scoileanna sa Choláiste, mar a leanas:-

### Ailtíreacht, Suirbhéireacht agus Togálaíocht

Innealtóireacht

Clóddóireacht

Ceadanna

Tá cúrsaí lán aimsire agus páirt aimsire ar fáil ar leibhéal na teicneolaíochta, teicneoireachta agus ceadanna. Tá deontais Stáit agus scoláireachtaí infóirthe, i gcásanna áirithe, do mhic léinn.

San mbunolaire seo, tá cur síos ar na cúrsaí éagsúla, na cáilíochtaí iontrála agus na cáilíochtaí gur féidir a bhaint amach (teastas, barrántas, comhaltachas i gcumainn ghairmiúla nó céim ollscoile).

Tagann na dálaí ó gach cuid den tír, cuid acu ón nGaeltacht, cuid eile ón íasacht. Tá súil ag lucht an gColaiste go nglacfaidh na mic léinn páirt gníomhach i saol an Choláiste.





## INTRODUCTION

**Historical Note:** In 1887 the first City of Dublin Technical School was established, and from this initiative the present system of schools and colleges later developed. The College building in Bolton Street was opened in 1911 and provided for education in Building, Engineering and Printing, lines of specialisation which have continued down to the present day. The first whole-time day courses commenced in 1920 with the inauguration of the Apprentice Scholarship Scheme. With the establishment of an Irish Government, technical education came within the province of the Department of Education and a Commission set up in 1926 made recommendations on development which led to the Vocational Education Act of 1930. The system of schools and colleges expanded in succeeding decades under the City of Dublin Vocational Education Committee, and the Bolton Street College was enlarged by new buildings in 1958 and 1963. The development of professional and technician courses began in the 1940's and these over the years gained the recognition of professional and vocational bodies in Ireland and other countries. The College provides places for 7,200 students who attend full-time or part-time courses in apprentice, technician and technological education.

### City of Dublin V.E.C.:

The College operates under the City of Dublin Vocational Education Committee. The CDVEC is assisted by a number of committees, including a Governing Body for Dublin Institute of Technology, College Councils for each of its six Colleges, a Joint Academic Council and a Buildings Committee.

### Dublin Institute of Technology:

In 1978 the Dublin Institute of Technology was established by the Vocational Education Committee to co-ordinate the work of its six colleges. Bolton Street is the largest of the colleges, the other constituent Colleges being the College of Technology Kevin Street, the College of Commerce, the College of Catering, the College of Music and the College of Marketing and Design. Its work and awards have attained National and International recognition by academic, professional and industrial Institutions. Through a partnership agreement with the University of Dublin graduates of professional level courses are eligible for degrees of the University. Over 1,500 teaching staff are primarily concerned with teaching 20,000 students attending whole-time and part-time third level and apprentice courses. The Institute is also involved in research and development and there is a growing demand for advisory and consultative services in institutions in developing countries. The Colleges of the Institute have played a leading role in the evolution of education in Ireland and are now involved with the latest developments in technology and business methods, maintaining their commitment to industrial, economic and cultural development.

### College Council:

The general direction of the affairs of the College is under the control of the College Council which is a sub-committee of the V.E.C. The Council consists of nine members nominated by the V.E.C., the Principal of the College, a member of academic staff elected by the staff and one student member nominated by the Students' Union. Its terms of reference include approval of annual estimates of expenditure, approval of the nature and range of courses offered, appointment of staff, responsibility for buildings and other facilities and generally examining any major proposals for development of the College.

### The Academic Board:

The Academic Board has responsibility for the College academic programmes. It comprises the Principal, the Heads of Schools, the Heads of Departments and representatives of the academic staff.

### Departmental Boards:

Departmental Boards are concerned with development of Departments' courses and facilities. There are Course Committees to advise on development of major courses. There are also Advisory Committees for major disciplines which assist the College in keeping courses abreast of developments in the professional and industrial fields.



## GENERAL INFORMATION & REGULATIONS

### Method of Application

The DIT Colleges are participating in the CAO (Central Admissions Office) for the first time in the 1982/83 session but in respect of their fulltime degree level courses only. Applications for all other courses will continue to be processed by individual Colleges and a parallel College based system will operate for processing applications for the degree level courses in 1982/83 session for those who do not wish to use the CAO.

Those who apply through the CAO for the following courses in the 1982/83 session should not make direct application to the College.

College Code	CAO Code	Course Description
D1	F201 ARCH. DEG	Diploma course in Architecture
D3	F203 ENV DEG	Diploma course in Environmental Economics
D4	F202 ECH DEG	Diploma course in Construction Economics
D42M	F204 MPEN.DEG	Diploma course in Mechanical/Production Engineering
D42S	F205 SEN DEG	Diploma course in Structural Engineering

### Method of Application

Direct application to the college for admission to wholetime courses should be submitted not later than 30th June, on the form obtainable from the Secretary. Documentary evidence of qualifications, if available, may accompany applications. Candidates awaiting results of examinations should make provisional application and applicants called for interview should bring proof of results at that time. In the case of part-time and evening courses it is not necessary to make application for admission in advance of the enrolment date for the course.

### Admission and Enrolment

Before acceptance of an application for admission to classes or courses the applicant is required to attend in person for interview and satisfy the College as to his/her ability to benefit from the proposed courses or classes. The College may require an applicant to sit an aptitude or other test before admission. Successful applicants for wholetime courses will be notified in writing in September, 1981 and invited to register for the course immediately. Students attending for registration and enrolment are required to have the following:

- Letter of acceptance for the course (only required in the case of students for **wholetime** courses).
- Two copies of a recent photograph of passport type and size.
- Tuition fees for the course or a letter from a Local Authority or other recognised body confirming that it will be responsible for the payment of tuition fees.

The latest date for admission of students to classes commencing in the first term is 31st October. Only in exceptional circumstances and subject to the additional payment of a late fee of £30.00 will applicants be admitted after that date.

## General Information and Regulations

All students are required to have a current College Identity Card. Students who were enrolled in the College in previous sessions must present the Identity Card previously issued to them for re-endorsement for the new session. The Identity Card is the property of the College and may be demanded by the College or its officers at any time. Students are therefore required to have their Identity Cards with them at all times while in the College. **Students may enter examination rooms only on production of a current Identity Card.** A charge of £1.00 will be made for the replacement of a College Identity Card and new photographs will be required.

Change of address or place of employment should be reported to the College Office immediately.

Change of classes or courses may be made only with the consent of the Head of Department.

### Fees

1.	Wholetime Professional/Degree Courses D1; D3; D4; D42M; D42S;	New Entrants Existing Students	£150 £120
2.	Wholetime Technician Courses D2A; D5A; D8; D40; D44; D45; D46C; D46H; D46M; D80;		£90
3.	Part-time day and evening courses D2B; D4A; D31; D41; D43C; D43M; D43V; D47; D82; D134; D154; D154A; D154B; D193; D196; D199; D200;		£50
4.	Evening Courses E1; E4; E9A; E9B; E31; E41; E42; E43C; E43M; E43V; E44; E45; E46 E47; E48; E49; E50; E51; E52; E53; E54; E55; E56; E57; E58; E60; E63; E83; E84A; E84B; E85; E86; E89A; E89B; E101; E102; E105; E107; E111; E121; E133; E134; E136; E143A; E149; E149A; E150; E150A; E151; E151A; E154 E154A; E154B; E180; E181; E182; E185; E186; E187; E191; E192; E195A; E195B E200;		£40
5.	Late Registration Fee NOTE: OVERSEAS STUDENTS Non-EEC Countries Existing Students as per Irish Students		£30 £600



### General Information and Regulations

Students who are enrolled in Colleges through Irish Government Agencies will pay the same fees as Irish students.

Fees are payable on enrolment and are not refundable except where a class or course does not form. An enrolment is not transferable from one student to another.

In cases of hardship it may be possible to obtain remission of fees. Applications in this context should be made directly in confidence to the Principal stating the circumstances and if possible should be accompanied by a letter of support from someone familiar with the applicant (e.g. Clergyman).

The sole proof of enrolment in any class or course in the College is the official receipt for the class or course fees paid. The official receipt must be presented on first attendance at each class.

### Grants and Scholarships

(a) Local Authorities are empowered to make Higher Education grants to eligible students to enable them to pursue courses of higher education at the College.

Applications for these grants should be addressed to the Secretary of the Local Authority in whose area the student's parents normally reside.

(b) Vocational Education Committees are empowered to award scholarships to students from their area attending Technician and other third-level courses at the College. Applications for these scholarships should be directed to the VEC of the area where the student's parents reside.

Students normally resident in the City of Dublin and who wish to compete for a scholarship from the City of Dublin Vocational Education Committee should complete the official application form. These forms are available from the College Secretary/Registrar or from Heads of Departments.

(c) AnCO, the Industrial Training Authority, offers a number of scholarships and grants each year to those pursuing Technician courses in the Engineering and Construction fields. Information on the scholarships and grants are available from AnCO, Box 456, Baggot Court, Dublin 2.

(d) **Ivan Webb Scholarship:** The Construction Industry Federation and the Master Builders Association have established a scholarship fund to commemorate the late Ivan Webb, a former Council member of both bodies who was killed in the Stansted air disaster. The object of the scholarship fund is to assist students in pursuing their courses of study. The scholarships apply to the full-time and part-time Higher Construction Technician Courses in the College and are awarded on the following basis: One scholarship valued at £500 to the student attaining the highest place in the results of the year's work and examinations in the First year of the Full-time Course.

Two scholarships valued at £250 each to the two students attaining the highest places in the results of the year's work and examinations in the Second year of the Part-time Course.

(e) **BETA Scholarships.** These are offered by the Engineering Graduates of the College to nominated students in the whole-time degree level Engineering courses who achieve particularly meritorious performances in each year of their courses. The BETA Silver Medal is awarded to the outstanding Engineering graduate each session.

### General Information and Regulations

#### Classes

Day classes will normally be held during the period 9.00 a.m. to 1.00 p.m. and 2.00 p.m. to 5.00 p.m. each week-day. Evening classes will normally be held from 7.00 p.m. to 10.00 p.m. except where otherwise arranged.

#### Formation and Continuation of Classes

The College reserves the right to change any or all of the syllabus, the day and time of meeting of any class and may cancel classes where the enrolment or attendance is considered inadequate. If for some reason a teacher cannot attend, classes may be cancelled without notice.

#### Trade Courses

Trade courses are provided for the sole purpose of supplementing the practical trade training of persons actually employed at and engaged in the various operations of the trade. The College realises that it is impossible for a person to learn a trade solely by attendance at these classes and is further of the opinion that the admission to the classes of persons not actually engaged in the trades would be not only of little use to such persons but would prejudicially affect the instruction of those for whom the classes have been organised.

Accordingly the College reserves the right to restrict enrolment in the trade practical classes to those persons who are actually employed in the several processes and operations of the trade. For admission to these classes proof of actual employment in the several processes and operations of the trade will be certificates to that effect from the Masters' Association, the official Trade Unions of the trade concerned or AnCO. Employers are kept informed during the session of absences or lates on the part of their apprentices. In addition, an end of session report on attendance and progress is issued to students and employers. Apprentices and employers are asked to note particularly that details of the employment and the attendance of all apprentices enrolled in release courses will be made available to AnCO—the Industrial Training Authority whether or not the apprentices are registered with the body. Students holding the Senior Trade Certificate of the Department of Education with one endorsement in mathematics or a science subject will satisfy the entrance requirements for courses in the Dublin Colleges which specify a pass in the Leaving Certificate Examination as the entrance requirement. Where endorsement subjects are not offered in the trade examinations, a pass in an appropriate subject of the Elementary Technological Certificate Examinations of the Department of Education will be an acceptable equivalent.

#### Overseas Students

The College is in a position to admit only a very limited number of Overseas students each year. The minimum standard required is the General Certificate of Education Ordinary Level in six subjects including English and Mathematics or equivalent qualifications. Applicants for professional or degree level courses are also required to have a minimum of two G.C.E. advanced level subjects or equivalent. Applications must be accompanied by a letter of recommendation from the diplomatic representative of the country of origin in Ireland, or, where there is no such representative, from the Ministry of Education in the country of origin. They must also satisfy the College as to their proficiency in written and spoken English.



### General Information and Regulations

No application will be accepted from overseas applicants for admission to part-time day or evening courses.

#### Examinations

The College conducts its own examinations for a number of the professional and technician courses. These are moderated by external examiners and lead to College awards. The College also offers courses leading to examinations and awards of external bodies for which it is an approved examination centre. Students are required to acquaint themselves with the examination and promotion regulations of the course for which they enrol.

#### College Examinations

Examinations are held at the end of each session or stage and are regulated by the College Academic Board and the Examination Board. An examination fee of £10.00 is payable in respect of College sessional examinations. In the case of supplemental examinations, a fee of £10.00 is payable. An additional fee of £20.00 is payable (Summer and Supplemental) where courses also lead to N.C.E.A. certificates and £25.00 where courses lead to N.C.E.A. Diplomas. The closing date for receipt of College examination entry forms and fees is 31st January, 1982, for the Summer examinations and 31st July, 1982 for the Autumn examinations. Applications for entry to examinations received after the closing dates will be considered only in exceptional circumstances and at the discretion of the College Examination Board Executive. These applications must be accompanied by a late entry fee of £10.00 together with a late entry fee of £10.00 where courses also lead to N.C.E.A. awards. No application for entry to examinations will be considered if received later than 31st March, 1982 in the case of Summer examinations or 21st August, 1982, in the case of Autumn examinations. Promotion to a higher year or stage in any subject is contingent on reaching the required standard in the sessional examination in the lower grade. A candidate unsuccessful in a sessional examination may be permitted to sit a Supplemental examination in relation to the same session where such is offered in accordance with the regulations established for the course. Candidates who do not complete an examination in all subjects of the year or stage or who are required to submit additional work (e.g. project or thesis) to the Examination Board for assessment before graduation or promotion to the next year of the course, must re-enter for that examination before 30th January, 1982, and pay the appropriate fees. Students should note that those not achieving a minimum average attendance of 75% in each subject of their course without satisfactory explanation, will be refused permission to sit College examinations. Students are required to submit regularly such project work and course work as may be prescribed by members of the academic staff and this will be taken into account in the assessment at the end of the session. A laboratory notebook must be maintained by each student of a laboratory class. An assessment will be made at the end of session of each student's progress in the laboratory techniques and experimental ability which will count in the sessional examination in that subject. Students will be admitted to the Examination Room only on

### General Information and Regulations

production of the IDENTITY CARD issued by the College in addition to the appropriate admission ticket/letter which is issued when and if an application to sit the examination is approved by the College. Students seeking a re-check of an examination result should make formal written application to the Examination Board Executive specifying the grounds on which the request is made. Appeals against examination results must be lodged with the Examination Board Executive within two weeks of the issue of provisional results on the standard form available on request from the college examination office and must be accompanied by a fee of £10.00.

#### Other Examinations

The College is a centre for a number of external examinations including the Department of Education and the City and Guilds of London Institute. Application for entry to these examinations must be made through the College Office in accordance with the closing dates as indicated on College Notice Boards.

In connection with the examinations of professional and other external bodies, students are advised to note the following:

1. Admission to a course in the College may not of itself entitle students to sit for examinations of external bodies. Students are themselves responsible for ensuring that they satisfy all the requirements of the examining body concerned.
2. Students are expected to acquaint themselves with the current regulations for the examinations which they propose to take.
3. Students must make the necessary applications and provide all documents that may be required.
4. The College Authorities will give assistance and advice in the above matters.

#### National Council for Educational Awards

The NCEA was established by the Government in 1972 and awards qualifications in a number of areas of study in non-university institutions. At present students in some engineering courses receive NCEA awards in addition to College awards.

#### University of Dublin

The City of Dublin Vocational Education Committee and the University of Dublin have entered into a formal agreement by which degree awards of the University are available to students of the College who successfully complete certain courses in Architecture, Engineering and Surveying. Details relating to these awards are given under the individual course entries.



## General Regulations

### General Information and Regulations

General regulations for Colleges and classes operating under the Authority of the City of Dublin Vocational Education Committee are displayed in the Entrance Hall. All students are subject to these regulations.

The Vocational Education Committee may expel any student without refund of fees, for irregular or unpunctual attendance or for any other reason which in the opinion of the College, justifies expulsion. Three successive absences from any class may lead to suspension from the entire course, unless a satisfactory written explanation is submitted to the Head of Department.

Students must provide themselves with such books, instruments and equipment (including special clothing) as their classes may, in the opinion of the College, require.

Students are required at all times to obey the lawful instructions of lecturers and other members of the College staff. Misconduct in the College or its grounds may lead to suspension or expulsion. All lecturers are authorised to enforce immediate disciplinary measures in respect of students whom they find violating the regulations of the College or otherwise misconducting themselves. The full co-operation of each student is invited in order to maintain the dignity and discipline of the College.

Students are liable for the cost of repair or replacement of any College property damaged by them.

Students are not permitted to smoke in the College classrooms, laboratories, lecture theatres, workshops, library or gymnasium. Parking of pedal and motor cycles in the space provided in the College grounds is normally permitted. Students are not permitted to bring cars into the College parking area.

Students are permitted to use the facilities of the College including the Gymnasium, on the understanding that they do so at their own risk. Though all reasonable care is taken, the College accepts no liability for student property lost, stolen or damaged on the College premises or grounds.

Locker accommodation is available for a considerable number of students on payment of a fee of £3.00 per session. This includes a deposit of £2.00 returnable only if the locker key is surrendered within seven days of the expiry of the period for which the locker has been granted, i.e., before 15th June, 1982.

## Office Hours

Office Hours: 9.00 a.m. to 12.45 p.m. and 2.15 p.m. to 5.00 p.m. Monday to Friday, and at special periods of the year at times which will be posted on the Notice Board. Except during enrolment periods members of the staff will not be available for interviews or consultations except by prior appointment.

## Cafeteria Facilities

The College Cafeteria is open throughout the session for lunches, teas and morning and afternoon snacks.



## The Library

The Library plays a vital part in the academic structure and programmes of the College. It provides a comprehensive information service, and study facilities for students and staff. While the emphasis in the book collection is on the major college disciplines, there is a gradual build-up of other subject areas. A phased development plan at present under way to increase the total stock from the existing 30,000 volumes to 40,000 volumes.

The Library also receives 600 current periodicals.

The Library maintains close links with the City of Dublin Public Library system of which it forms part and it has access to the total holdings of that system. It also has close links with the Libraries of An Foras Forbartha, the Institute for Industrial Research & Standards, the Universities and other Research Institutes both here and abroad. Through these links photocopied material and books on inter-library loan may be quickly obtained. By arrangement facilities may also be provided for staff and senior students to use these libraries for research purposes.

The Library contains an open access stack area, a periodicals and reference area and a reading area which provides seating for 200 readers. A lending scheme is in operation for all books. There is a coin operated photo-copying machine in the library for the use of readers.

First year students are given introductory lectures on the use of the library by the librarian. Library publications include a current list of periodicals and a monthly accessions list.

### Hours of Opening:

In Term	Monday to Friday 9.30–21.30	Saturday 9.30–13.00
Summer Term	Monday to Friday 9.30–21.30	Saturday 9.30–17.00
In Vacation	Monday to Friday 9.30–17.30.	



## General Information and Regulations

### The Students' Union

The Students' Union is the students' representative body in the College. Every student becomes a member of the Union on enrolment. The Union is democratically based and it is dependent for its effectiveness on the involvement of its members. It is administered by an executive which is elected by the student body. The Union President is a full-time sabbatical officer with a wide range of tasks and responsibilities.

Each class in the College elects a representative to the Students' Union Council. In addition College Societies and the Union Executive are represented on the SUC and it is a forum for discussion and decision making.

The ultimate decision-making body of the Union is the General Meeting which is a meeting of the whole student body.

#### Functions of the Union:

1. To represent the views of its members.

This the Union does at College level by representing the students on the College Council, Library and Cafeteria Committee and other bodies.

It represents its members' views at national level through the Union of Students in Ireland.

2. To provide recreational and social facilities for its members. These include lunchtime concerts, parties, dances, and guest speakers. The Union also maintains a comfortable Common Room where students may meet, have discussions or just relax.

The College Societies are also under the umbrella of the Union and, as well as parties, they organise trips, lectures and concerts. The Sports' Council acts as the co-ordinating body for the many sporting activities in the College.

3. To provide services for members.

The Student Shop (D1) provides stationery, newspapers, sweets, drawing equipment and textbooks. It also issues International Student Identity Cards and provides information on student travel.

Union Offices: Room A51.

## Architecture, Surveying and Building

### ARCHITECTURE

### SURVEYING AND BUILDING



## Architecture, Surveying and Building



The School provides courses at technological and technician levels for occupations within the building industry, and brings together in the process of education those who will work together professionally in later careers.

The Architect is responsible for the design and supervision of building projects.

The Construction Economist, according to his specialisation, may be concerned, as quantity surveyor, with projects, economics or with the management of the building operation.

The Environmental Economist has a similar role in the wider range of urban development and planning, or in estate management.

The Geo-Surveyor is concerned with the land itself, its nature, its resources, and the measurement and definition of these.

Employment opportunities in all cases exist in a range from personal professional consultancy to employment in architectural and building organisations and in State or municipal departments.



## TECHNOLOGICAL AND TECHNICIAN COURSES – WHOLE TIME

D1.

### DIPLOMA COURSE IN ARCHITECTURE

This is a five-year whole-time course leading to the Diploma in Architecture. Graduates from the course become eligible for membership of the Royal Institute of the Architects of Ireland after they have completed the requirements relating to practical experience and professional practice. Success in the Third Year gives exemption from the Intermediate Examinations of the Royal Institute of the Architects of Ireland. Holders of the Diploma are eligible for the award of the B.Arch.Sc. Degree of the University of Dublin. All subjects must be passed in any year of the course before a student can be considered for promotion to the next year of the course.

#### Entrance Standard

The minimum preliminary educational qualifications required for direct entry, subject to interview and suitability assessment by the Interview Board, are:—

- (a) The Department of Education Leaving Certificate with not lower than Grade D in a minimum of four subjects and at least two other subjects at Grade A, B or C on the Higher Level Course or
- (b) The General Certificate of Education with not lower than Grade D in four subjects and at least two other subjects at Advanced Level or
- (c) Equivalent qualifications (i.e. Matriculation of the National University of Ireland).

Note: Subjects must include Mathematics and English.

#### Subjects of Instruction are

##### First Year

Studio Work; Architectural Design; Building Construction and Materials; History of Architecture; Theory of Architecture; Mathematics and Statistics; Mechanics; Physics; Chemistry.

##### Second Year

Studio Work; Theory of Architecture; Irish Art and Architecture; Art and Civilisation; Building Construction and Materials; Building Services I; Theory of Structures; Physics; Chemistry.

##### Third Year

Studio Work; Theory of Architecture; History of Town Planning; Interior Design; Building Construction; Building Practice; Building Services II; Building Materials; Structural Engineering; Surveying and Levelling; Computer Studies.

##### Fourth Year

Studio Work; Theory of Architecture; History of Architecture; Building Construction; Structural Engineering; Professional Practice; Interior Design (including Furniture design); Urban Design; Economics and Cost Control; Computer Studies.

#### Fifth Year

Studio Work; Structural Engineering; Professional Practice; Urban Design; Specifications and Materials; Economics and Cost Control; History of Architecture.

#### Note

Studio Work includes Architectural Drawing, Architectural Design, Building Construction, Drawing, Graphics and in the case of the First Year only, Geometrical Drawing.

D8.

### ARCHITECTURAL TECHNICIAN DIPLOMA COURSE

This is a three-year whole-time course designed to train Architectural Technicians and leading to the Architectural Technicians' Diploma. The Final examination of the course is accepted as a qualification for Technician membership of the Royal Institute of Architects of Ireland, for Associate membership of the Institute of Architectural and Associate Technicians and for membership after two years of practical experience.

#### Entrance Requirements

The minimum preliminary educational qualifications required for direct entry, subject to interview and suitability assessment by the Interview Board, are:—

- (a) The Leaving Certificate of the Department of Education in at least five subjects or
- (b) The equivalent in the Matriculation Certificate of a recognised University OR
- (c) The General Certificate of Education in at least five subjects

Note: Subjects must include Mathematics and English.

Applicants holding the above qualifications will be asked to attend for an aptitude/suitability test. Those who score well in the test will be called for interview in September after which the places available on the course will be allocated.

#### Course of Study

##### First Year

Building Science, Structures, Surveying and Levelling, Graphics, Building Construction, History and Theory of Architecture, Architectural Drawing.

##### Second Year

Building Construction, Building Materials, Structures, Surveying and Levelling, Building Services, Pre-fabrication and System Building, Joinery and Projects.

##### Third Year

Building Technology, Building Materials, Structures, Building Services and Specifications, Contracts and Architectural Practice.

#### Examination and Other Requirements

Progress to successive years of the course is decided on the basis of the student's work during the session and success in the college sessional examinations. Students are required to gain approved practical experience in professional offices during the summer vacations.



**D3.****DIPLOMA COURSE IN ENVIRONMENTAL ECONOMICS**

This is a four-year whole-time course leading to a Diploma in Environmental Economics. It is designed for those who wish to work as Valuers, Estate Agents, Property Advisers, Developers and Planners in either private or public employment. Holders of the Diploma are exempted from all academic examinations leading to Corporate Membership of the General Practice Division of the Royal Institution of Chartered Surveyors. They receive similar exemption from the Planning and Development Division of the Institution except for having to sit two of the papers of the Final Examinations. They are exempted from the Intermediate Examination of the Royal Town Planning Institute. The Course is also recognised by the Irish Auctioneers' and Valuers' Institute. Holders of the Diploma are eligible for the award of the Degree B.Sc. (Surveying) of the University of Dublin and are accepted for entry to appropriate University Post Graduate courses in Ireland and abroad.

**Course of Study  
First Year**

Mathematics, Environmental Science, Introduction to Law, Valuations, Accountancy, Economics, Professional Development, Construction Technology.

**Second Year**

Computer Usage, Local Administration and Housing, Mathematics, Statistics, Economics, Environmental Law, Construction Technology, Land Surveying, Planning, Valuations.

**Third Year**

Investment Analysis, Urban Renewal Project, Environmental Law, Economics, Valuations, Planning, Professional Practice and Procedure, Urban Sociology, Construction Technology, Land Surveying.

**Fourth Year**

Economics, Valuations, Planning, Taxation.

In the fourth year each student prepares a major dissertation as part of the final examination.

**Practical  
Experience**

Students are required to gain Industrial and Professional experience during the extended summer vacations.

**Entry  
Qualifications**

Entry to the course is by selection following interview of those applicants holding the following minimum qualifications:

(a) The Secondary Schools Leaving Certificate in at least six subjects including Mathematics and English with a minimum Grade C in two subjects at Higher Level

OR

(b) The equivalent in the Matriculation Certificate of a recognised University

OR

(c) The General Certificate of Education with a minimum of two subjects at Advanced Level and four subjects at Ordinary Level including Mathematics and English Language or Literature.

**D4.****DIPLOMA COURSE IN CONSTRUCTION ECONOMICS**

This is a four-year whole-time course leading to a Diploma in Construction Economics or Construction Management. It is designed for those who wish to work as Quantity Surveyors, Economic Advisers in the Construction Industry, Building Development Co-ordinators and Building Managers. Holders of the Diploma are exempted from all academic examinations leading to Corporate Membership of the Royal Institution of Chartered Surveyors (Quantity Surveying Division). The Institute of Building, The Institute of Quantity Surveyors and The Construction Surveyors' Institute. Holders of the Diploma are also eligible for the award of the Degree B.Sc. (Surveying) of the University of Dublin and are accepted for entry to appropriate University Post Graduate courses in Ireland and abroad.

**Course of Study****First Year**

Mathematics, Environmental Science, Introduction to Law, Measurement, Financial Management, Economics, Professional Development, Construction Technology I.

**Second Year**

Computer Usage, Land Surveying, Statistics, Construction Technology, Measurement, Economics, Financial Management, Construction Law II.

**Third Year**

Construction Law, Production Management, Building Economics, Measurement and Specifications, Measurement of Civil Engineering Work, Construction Technology.

**Fourth Year**

Financial Management, Building Economics, Contract Administration, Measurement.

In the fourth year each student prepares a major dissertation as part of the final examination

**Practical  
Experience**

Students are required to gain Industrial and Professional experience during the extended summer vacations.

**Entry  
Qualifications**

Entry to the course is by selection following interview of those applicants holding the following minimum qualifications:

(a) The Secondary Schools Leaving Certificate in at least six subjects including Mathematics and English with a minimum Grade C in two subjects at Higher Level

OR

(b) The equivalent in the Matriculation Certificate of a recognised University

OR

(c) The General Certificate of Education with a minimum of two subjects at Advanced Level and four subjects at Ordinary Level including Mathematics and English Language or Literature.



**D2A. CONSTRUCTION TECHNICIAN DIPLOMA COURSE**

This is a three-year full-time course leading to a Technician Diploma in Construction and is designed for those who wish to work at middle management level in the Building Industry. Holders of this Diploma qualify for Licentiate status of the Institute of Building, and Construction Surveyors Institute and Technician membership of the Incorporated Association of Architects and Surveyors.

**Course of Study****First Year**

Mathematics; Science for Technology; Land Surveying I; Accountancy; Construction Technology I; Measurement I.

**Second Year**

Builders Accounts; Land Surveying II; Estimation and Price Build Up; Construction Technology II; Measurement II.

**Third Year**

Construction Law; Management; Economics; Construction Technology III; Measurement and Specification III; Variations.

Full-time students are required to gain industrial experience during the summer vacation.

**Entry Qualifications**

Entry to the course is by selection following interview of those applicants holding the following minimum qualifications:

- (a) The secondary schools Leaving Certificate in at least five subjects including Mathematics OR
- (b) The equivalent in the Matriculation Certificate of a recognised University OR
- (c) The General Certificate of Education in at least five subjects.

**D5A. GEO-SURVEYING TECHNICIAN CERTIFICATE / DIPLOMA COURSE**

This is a three year whole-time Technician Certificate and Diploma course in Surveying which prepares students for careers in land and mining surveying in both the public and private sectors of employment.

**First Year**

Mathematics and Statistics; Science including Electronics; Surveying Methods and Practice; Theory and Use of Instruments; Survey Drawing; Computer Programming; Liberal Studies.

**Second Year (Certificate Stage)**

Elements of Law and Administration; Instrumentation; Elements of Hydrographic Surveying; Introduction to Photogrammetry and Cartography; Geology; Mineral Technology; Mathematics; Science; Land Survey; Mine and Engineering Survey.

**Third Year (Diploma Stage)**

Cartography; Land Surveying and Astronomy; Photogrammetry; Engineering Surveying; Mathematics and Statistics; Geophysics and Mine Surveying; Field Practical and Dissertation.

**Practical Experience**

Field camps are conducted at the end of the first year and also at the end of the second year for those proceeding to the third year of the course. In addition students are required to gain field experience during the summer vacation.

**Entry Qualifications**

Entry to the course is by selection following interview of those applicants holding the following qualifications:—

- 1(a) The Secondary Schools Leaving Certificate with passes in a minimum of five subjects including Mathematics and English, or
  - (b) A recognised equivalent.
- Preference will be given to applicants with good grades in Mathematics.

**D6. URBAN DESIGN (POST GRADUATE)**

Commencement of course is subject to additional accommodation and finance being available to the College.

**D10.****PLANNING TECHNICIAN CERTIFICATE COURSE**

Commencement of course is subject to additional accommodation and finance being available to the College.



## TECHNOLOGICAL AND TECHNICIAN COURSES PART-TIME

### CONSTRUCTION TECHNICIAN DIPLOMA COURSE PART-TIME

#### D2B.

This day release course is similar to the wholetime Diploma course and leads to the award of the Construction Technician's Diploma. Classes are scheduled on one day and two evenings per week over a period of four years. Entry to this course is open to those holding:—

- (a) The secondary schools Leaving Certificate in at least five subjects including Mathematics OR The Matriculation Certificate of a recognised University OR The General Certificate of Education.
- (b) Appropriate employment in the Construction Industry.

#### D4A.

### DIPLOMA COURSE IN CONSTRUCTION ECONOMICS PART-TIME

This day release course is similar to the wholetime Diploma course and leads to the award of a Diploma in Construction Economics. Classes are scheduled on one day and two evenings per week over a period of six years. The academic entry qualifications for the course are similar to D4. In addition candidates must be in appropriate employment in the Construction Industry.

### SHORT-TERM COURSES

Short-term Courses in the Building and Project Management area will be held during the session. These will be advertised in the National Press.

## Architecture, Surveying + Building Evening Courses

### E1.

### CONSTRUCTION TECHNICIAN

This is a four year evening course in Building Construction and associated subjects in preparation for the Department of Education and City & Guilds of London Institute examinations.

#### Course Duration

4 years — 3 evenings per week.

#### Objectives

Elementary level examination at the end of the second year. Intermediate level examination at the end of third year. Advanced level examination at the end of fourth year.

#### Entry Requirements

Employment in the Construction Industry.  
Exemption from First Year of the course may be granted to an applicant who has achieved an acceptable level in Drawing and Building Subjects. Success in the Elementary Stage examination is a requirement for entry into the Third Year of the course.  
Success in the Intermediate Stage examination is a requirement for entry into the Final Year of the course.

#### Subjects

1st and 2nd Year  
Building Construction, Materials, Mathematics and Geometry.

3rd Year  
Building Construction, Materials, Quantities and Estimating, Land Surveying and Setting-out or Intermediate Geometry.

4th Year  
Building Construction, Quantities and Estimating, Plane and Solid Geometry.

### E4.

### PROFESSIONAL COURSE IN SURVEYING AND CONSTRUCTION STUDIES

This is a three-year, two-stage evening link course to enable students who hold Intermediate Level qualifications in the construction and surveying fields to progress to full professional qualifications of the appropriate institution.

Students may attend classes up to five evenings per week depending on their selection of subjects.

#### Entry Qualifications

N.C.E.A. Diploma in Construction Studies, C.T.D., L.I.O.B., L.C.S.I., R.I.C.S., and I.Q.S., Part I examinations.



## E9A. PHOTOGRAMMETRY AND CARTOGRAPHY

This is a one-year evening course involving attendance for nine hours per week for twenty-two weeks. The course is open to people employed in Cartography and will cover modern methods of Surveying and Map Production.

## E9B. MINE SURVEYING

This is a one-year evening course involving attendance for nine hours per week for twenty-two weeks. The course is open to people employed in Mining and will cover modern methods of surveying related to Mining.

## E9C. BUILDING MANAGEMENT

This is a one-year course involving attendance for nine hours per week for twenty-two weeks. The course is confined to persons who have held positions of responsibility in the building field for at least two years.

# Engineering

## ENGINEERING

The School of Engineering and Technology is a part of the College of Engineering and Technology, which is a part of the College of Engineering and Technology. The School of Engineering and Technology is a part of the College of Engineering and Technology.

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## PHOTOGRAMMETRY AND CARTOGRAPHY

This is a practical course which teaches the use of aerial photography for the purpose of mapping. The course is designed to provide the student with a knowledge of the principles and methods of photogrammetry and cartography and will cover the use of the following equipment:

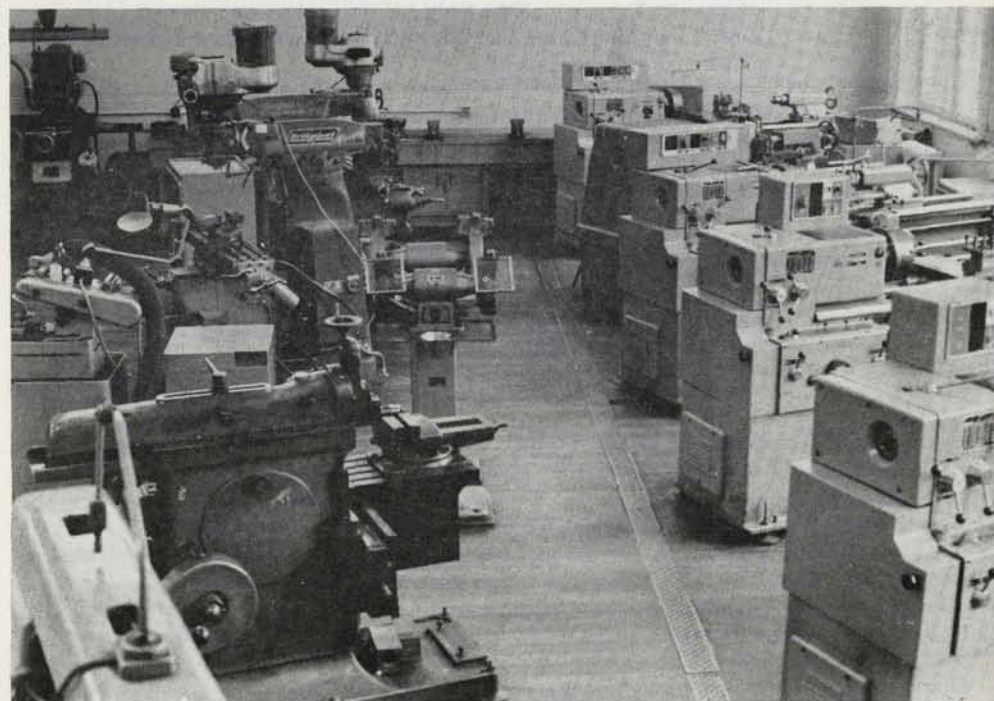
## MINE SURVEYING

This is the principal course in the department of mine surveying. It is a practical course which teaches the use of theodolites, levels, and other instruments for the purpose of surveying mines. The course is designed to provide the student with a knowledge of the principles and methods of mine surveying and will cover the use of the following equipment:

## BUILDING MANAGEMENT

This is a practical course which teaches the use of the building management system. The course is designed to provide the student with a knowledge of the principles and methods of building management and will cover the use of the following equipment:

# Engineering



The School of Engineering encompasses five departments within the College—Engineering Technology, Automobile Engineering, Aeronautical Engineering, Mathematics and Science, and Engineering Trades.

The academic programmes in Engineering within the College range from Craft to full professional level. It is the College policy to provide an integrated system, horizontally in the range of technologies and vertically in their levels. In this way it is hoped that all students will find courses suitable to their needs and abilities. Opportunities for transfer or promotion to related disciplines are provided.

The Engineering School maintains close links with industry through direct contact with employers, through vacation training project work and research activities. The links with professional institutions are strong and there is a conscious awareness of modern needs in technological education and training.

Most of the professional engineers who graduate annually enter employment in Irish manufacturing or process industries or consultancy practices where their thorough preparation enables them to make a useful contribution immediately. Some continue to post-graduate work at home, or abroad in Britain, Canada, or the United States.



The College is aware of the growing need for technicians in Ireland and in recent years has developed a number of courses to meet the demands which exist. The opportunities for technician graduates continue to expand and such courses offer very attractive prospects to young people in search of interesting careers.

The Evening School continues to form an important part of the Engineering School's activities. Programmes are kept under review and every attempt is made to assist technical personnel to keep abreast of the latest advances and new technological developments.

All applicants who meet the minimum specified educational requirements for entry are interviewed shortly before the commencement of the course in September. As the accommodation of the College is limited it is regretted that in many cases only some of the applicants can be accepted.

## TECHNOLOGICAL AND TECHNICIAN COURSES — WHOLE-TIME

### D40.

#### PRELIMINARY ENGINEERING COURSE

This is a one-year whole-time course commencing each year about mid-September. Its purpose is to prepare suitable students for entry to the Professional Engineering Courses D42M or D42S or for entry into one of the Colleges Engineering Technician courses.

#### Entrance Requirements

Leaving Certificate of the Department of Education with good passes in Mathematics, English, and three other subjects; or equivalent.

#### Course of Study

The subjects studied are: Mathematics, Mechanics, Engineering Technology, Physics, Chemistry, Engineering Drawing, and Complementary Studies.

#### Examinations and Other Requirements

Students are required to:

- (a) take a College examination at the end of the session;
- (b) present laboratory notebooks and project work reports to the satisfaction of the College authorities.

### D42M.

#### PROFESSIONAL COURSE IN ENGINEERING — MECHANICAL AND PRODUCTION ENGINEERING

This is a four-year full-time course which prepares young people with a suitable aptitude and educational background for a career in Mechanical or Production Engineering and particularly for employment in manufacturing and process industries.

#### Entrance Requirements

- (a) Leaving Certificate of the Department of Education in six subjects with Grade C or better in the higher course in Mathematics and a Science subject (preferably Physics), and a pass in four other subjects OR
- (b) Such other qualifications as the College may deem to be equivalent.

#### Course of Study

First Year—Mathematics, Applied Maths, Engineering Drawing, Engineering Technology, Physics, Chemistry, Economic and Social Studies.

Second Year—Mathematics, Principles of Electricity, Mechanics, Thermodynamics, Fluids, Drawing, Physics, Production Technology, Economic and Social Studies, Workshop and Laboratory Work.

Third Year—Mechanics of Materials, Mechanics of Machines, Principles of Production, Thermodynamics, Fluid Mechanics, Electrotechnology, Mathematics and Statistics, Management Studies and Laboratory Work.

Final Year—Mechanics of Materials, Mechanics of Machines, Engineering Design, Electrotechnology, Mathematics and Computer Applications and Management Studies, together with two other subjects: Thermodynamics and Fluids (Mechanical option), or Production Technology and Analysis of Manufacturing Systems (Production option).

In the Final Year, students are also required to carry out an individual design or research project and to submit a thesis on the work undertaken.

#### Examination and Other Requirements

Progress to successive years of the course is decided on the basis of the student's work during the session, and success in the College sessional examination. It is an essential requirement of the course that the student completes a 2-3 month period gaining suitable practical experience during each Summer and submits a report on it.



At the completion of the course students who have been successful in the Final examination will be eligible for the award of the College Diploma in Engineering. They are also eligible for the award of the B.Sc. (Eng.) degree of the University of Dublin.

**Recognition  
by Professional  
and Other Bodies**

Students holding this Diploma meet the academic requirements for Membership of the Institution of Engineers of Ireland. It is also widely accepted by Universities in Ireland and abroad as meeting their academic requirements for entry into post-graduate courses.

**D42S. PROFESSIONAL COURSE IN ENGINEERING –  
STRUCTURAL ENGINEERING**

This is a four-year full-time course which prepares young people with a suitable aptitude and educational background for a career as Structural Engineers. Structural Engineering is a branch of Civil Engineering related to the design of buildings, bridges, dams and other construction projects.

**Entrance  
Requirements**

As for Course D42M.

**Course of Study**

First Year—Mathematics, Applied Maths, Engineering Drawing, Engineering Technology, Physics, Chemistry, and Economic and Social Studies.  
Second Year—Mathematics, Physics, Fluids, Mechanics, Structural Drawing and Design, Building Technology, Surveying, Geology and Soil Mechanics, Economic and Social Studies, and Laboratory Work.  
Third Year—Mathematics, Mechanics of Materials, Theory of Structures, Geology and Soil Mechanics, Building Services, Surveying, Management Studies and Laboratory Work.  
Fourth Year—Mathematics, Mechanics of Materials, Theory of Structures, Design of Structures, Municipal Engineering, Professional Practice, Management Studies, a Project and Laboratory Work.

**Examination  
and Other  
Requirements**

As for Course D42M.  
At the completion of the course students who have been successful in the Final examination will be eligible for the award of the College Diploma in Engineering. They are also eligible for the B.Sc. (Eng.) degree of the University of Dublin.

**Recognition  
by Professional  
and Other Bodies**

Students holding this Diploma meet the academic requirements for Membership of the Institution of Engineers of Ireland. It is also widely accepted by Universities in Ireland and abroad as meeting their academic requirements for entry into post-graduate courses.

**D44.**

**DIPLOMA COURSE IN MOTOR INDUSTRY  
MANAGEMENT**

This whole-time course prepares students for entry into the many and varied responsible positions in the Motor Industry. The course prepares students for the College examinations for the award of a Transport Engineering Technician Certificate at the end of two years' study and for the award of the Diploma in Motor Industry Management at the end of a further year's study.

**Entrance  
Requirements**

Leaving Certificate or equivalent in five subjects, preferably with passes in Mathematics, Physics and English.  
Candidates will be called for interview before being finally accepted for admission to the course.

**Course of Study**

First Year—Automobile Engineering, Heat Engines, Applied Mechanics, Drawing, Mathematics, Chemistry, Management Studies and Complementary Studies.  
Second Year—Automobile Engineering, Heat Engines, Applied Mechanics, Drawing, Mathematics, Management Studies and Complementary Studies.  
Third Year—Automobile Engineering, Mathematics, Motor Industry Management, Fleet Transport Management, Industrial Sociology, Accountancy, and a Project.

**Examination  
and Other  
Requirements**

Progress to successive years of the course will be on the basis of the student's work during the session and success in the College sessional examinations. Only students who successfully complete the Certificate stage and who display an aptitude for management will be accepted for the Diploma stage of the course. An essential requirement of the course is that students spend 2-3 months of each Summer Vacation in suitable employment in the Motor Industry gaining appropriate experience. Where students are unable to arrange Summer employment, the Graduate Society of the Institute of the Motor Industry and the College Authorities will assist in their placement for this purpose.

**Recognition by  
Professional and  
Other Bodies**

Students qualifying for the award of the Diploma are eligible for full exemptions from the examination requirements of the Institute of the Motor Industry.

**D45.**

**AIRCRAFT TECHNICIANS' COURSE**

This course is a two-year sandwich course to train those already employed in the aeronautical industry as Aircraft Technicians for the ICAO Licensed Maintenance Engineers' Licences issued by the Department of Transport and Power. Students attend the College from September to May inclusive and spend the remainder of the year in the Aircraft Industry.

**Entrance  
Requirements**

- (a) Intermediate Certificate of the Department of Education in suitable subjects; or
- (b) Day Group Certificate of the Department of Education in suitable subjects.
- (c) Employment in an Aeronautical Engineering environment.



## Technological and Technician Courses

<b>Course of Study</b>	<b>First Year</b> French, English, Social Science, Physics, Mechanics, Mathematics, Drawing, Heat, Workshop Technology. Workshop Practice, Aero-Laboratory and Physical Training.
	<b>Second Year</b> As above except Heat Engines instead of Physics.
<b>Examination and Other Requirements</b>	Students are required to pass examinations as follows: (a) At the end of the first year — the Department of Education Junior Trade Group Certificates and Elementary Stage Technological Examinations in Mechanical Engineering. (b) At the end of the second year—the Department of Education Senior Trade Group Certificate in Mechanical Engineering and City and Guilds of London Institute Examination in Aeronautical Engineering Practice Part I.

### D46C. CIVIL ENGINEERING TECHNICIAN CERTIFICATE AND DIPLOMA COURSE

This course prepares students for a Technician Certificate award in Civil Engineering at the end of two years and for a Technician Diploma award at the end of a further year of study. The students attend the College from the end of September until the end of May each year and they spend the Summer months gaining practical experience in approved Civil or Structural Engineering design offices, construction sites, etc.

<b>Entrance Requirements</b>	First Year—Leaving Certificate or equivalent with good passes in Mathematics, a Science subject (preferably Physics), English and two other subjects or equivalent. Third Year (Diploma Stage)—Students are expected to reach Credit or Distinction level in the Certificate Examination at the end of the second year to qualify for admission to the third year of the course leading to the Diploma award. The Diploma stage is specialised and is focussed on Structural Design.
<b>Course of Study</b>	First Year—Mathematics, Engineering Science, Mechanics, Drawing, Construction Technology, Surveying and Complementary Studies. Second Year (Certificate Stage)—Structural Design and Detailing, Mathematics, Engineering Materials and Laboratory Work, Surveying, Construction Services and Supplies, Planning and Administration and Complementary Studies. Third Year (Diploma Stage)—Theory of Structures, Structural Design, Municipal and Road Engineering, Mathematics and Data Processing, Management Studies and a Project.
<b>Examination and Other Requirements</b>	(a) Students take a College examination at the end of each year which is moderated by the National Council for Educational Awards, and (b) They are required to submit a report on their Summer vacation training each year and also reports on their project and laboratory work.
<b>Recognition by Professional Bodies</b>	Those who have successfully completed the Certificate Stage of this course meet the academic requirements for Technician status with the Institution of Engineers of Ireland, while those who have completed the Diploma Stage meet the Technician Engineer level and can qualify for the non-Corporate Associateship grade of membership after they have completed a suitable period of practical training.

## D46H.

### ENVIRONMENTAL/BUILDING SERVICES ENGINEERING TECHNICIAN CERTIFICATE AND DIPLOMA COURSE

This course prepares students for a Technician Certificate award in Environmental/Building Services Engineering at the end of two years and for a Technician Diploma award at the end of a further year of study. The students attend the College from the end of September until the end of May each year and they spend the Summer months gaining practical experience in Heating, Ventilating and Air Conditioning design in Consulting Engineers' offices and related industry.

**Entrance Requirements**

First Year—Leaving Certificate or equivalent, with good passes in Mathematics, a Science subject (preferably Physics), English and two other subjects or equivalent.  
Third Year (Diploma Stage)—Students are expected to reach Credit or Distinction level in the Certificate Examination at the end of the second year to qualify for admission to the third year of the course leading to the Diploma award.

**Course of Study**

First Year—Mathematics, Mechanics, Engineering Science, Drawing, Instrumentation and Materials, Building Construction and Services, and Complementary Studies.  
Second Year—Mathematics, Thermal and Fluid Plant, Electrotechnology and Industrial Instrumentation, Complementary Studies, Environmental Engineering, Environmental Plant Design, Lighting Acoustics and Water Services.  
Third Year—Mathematics, Management Studies, Electrotechnology and Electronics, Process Plant Technology I, Environmental Engineering, Environmental Plant Services, Environmental Plant Design, and Project Work.

**Examination and Other Requirements**

(a) Students take a College examination at the end of each year, which is moderated by the National Council for Educational Awards, and  
(b) They are required to submit a report on their Summer vacation training each year and also reports on their project and laboratory work.

**Recognition by Professional Bodies**

Those who have successfully completed the Certificate Stage of this course meet the academic requirements for Technician status with the Institution of Engineers of Ireland, while those who have completed the Diploma Stage are at Technician Engineer level and can qualify for the non-Corporate Associateship grade of membership after they have completed a suitable period of practical training.



**D46M.**

**MECHANICAL ENGINEERING TECHNICIAN  
CERTIFICATE AND DIPLOMA COURSE**

This course prepares students for a Technician Certificate award in Mechanical Engineering at the end of two years and for a Technician Diploma award at the end of a further year. The students attend the College for eight months each year commencing in September, and they spend the Summer period getting practical experience in industry, design offices, etc.

**Entrance  
Requirements**

First Year—Leaving Certificate or equivalent with good passes in Mathematics, a Science subject (preferably Physics), English and two other subjects or equivalent.

Third Year (Diploma Stage)—Students are expected to reach Credit or Distinction level in the Certificate Examination at the end of the second year to qualify for admission to the third year of the course leading to the Diploma award. The Diploma stage is specialised. At present two options are offered—Manufacturing Technology or Process Plant.

**Course of Study**

First Year—Mathematics, Engineering Science, Drawing, Mechanics, Workshop Technology, Instrumentation and Materials and Complementary Studies.

Second Year—Mathematics, Thermal and Fluid Plant, Electrotechnology and Industrial Instrumentation, Complementary Studies, Mechanics, Drawing, Design and Engineering Materials, Production Technology.

Third Year—Common subjects: Mathematics, Management Studies, Electrotechnology and Electronics.

Manufacturing Technology Option: Mechanics, Manufacturing Technology I, Manufacturing Management, Manufacturing Design, and Project Work.

Process Plant Option: Materials Science, Process Plant Technology I, Process Plant Technology II, Process Plant Design, and Project Work.

**Examination  
and Other  
Requirements**

(a) Students take a College examination at the end of each session, which is moderated by the National Council for Educational Awards.

(b) They are required to submit a report on their industrial training each year and also reports on their Project and laboratory work.

**Recognition by  
Professional  
Bodies**

Those who have successfully completed the Certificate Stage of this course meet the academic requirements for Technician status with the Institution of Engineers of Ireland, while those who have completed the Diploma Stage are at Technician Engineer level and can qualify for the non-Corporate Associateship grade of membership after they have completed a suitable period of practical training.

**TECHNOLOGICAL AND TECHNICIAN  
COURSES — PART-TIME**

**D31.**

**BUILDING SERVICES ENGINEERING**

This course prepares students, with an Environmental Engineering Technician Diploma or equivalent qualification, for the new Part II Examination of the Chartered Institute of Building Services. (C.I.B.S.) It is a two year course and all applicants are expected to have a good background in Heating, Ventilating and Air Conditioning Engineering practice. Details of the syllabus and sample examination papers are available from the C.I.B.S. at 49 Cadogan Square, London SW1X 0JB.

**D41.**

**GRADUATE COURSE IN ENGINEERING**

A four-year part-time day and evening course in preparation for the examinations of the Professional Engineering bodies. The course of study is as set out for course E41 which is the parallel evening course.

**D43C.**

**CIVIL ENGINEERING TECHNICIAN CERTIFICATE  
AND DIPLOMA COURSE**

This part-time day and evening course prepares students for a Technician Certificate/Diploma in Civil Engineering. Students are expected to be already suitably employed in a Civil Engineering or Construction firm before commencing the course.

**Entrance  
Requirements**

Leaving Certificate or equivalent with passes in Mathematics, a Science subject (preferably Physics), English, and two other subjects or a Senior Trade Certificate with suitable endorsements.

**Course of Study**

*Stage I*—First and Second Year Subjects: Mathematics, Engineering Science, Mechanics, Drawing, Surveying, Construction Technology and Complementary Studies.

*Stage II*—Third and Fourth Years—Certificate Stage—Subjects: Structural Design and Detailing, Engineering Materials and Laboratory Work, Mathematics and Computation, Construction Services and Supplies, Surveying, Planning and Administration, and Complementary Studies.

*Stage III*—Fifth and Sixth Years—Diploma Stage. This stage offers options in Municipal Engineering and Structural Engineering. Candidates are expected to be employed and gaining suitable experience in the appropriate field and are required to have passed the Certificate Stage with Credit, or have at least one year's suitable experience together with a Pass Certificate. Subjects: Mathematics, Road Engineering, Management Studies, Planning and Building Regulations, Hydraulics and Sanitary Services, Design and a project (Municipal Option) and Mathematics, Management Studies, Theory of Structures, Structural Design (Concrete), Structural Design (Steel), Municipal Engineering, and a project (Structural Option).



**Examinations and Other Requirements**

At the end of each year students take a College Examination which is moderated by the National Council for Educational Awards.

**Recognition by Professional Bodies**

Those who have successfully completed the Certificate Stage of this course meet the academic requirements for Technician status with the Institution of Engineers of Ireland, while those who have completed the Diploma Stage meet the Technician Engineer level and can qualify for the non-Corporate Associateship grade of membership after they have completed a suitable period of practical training.

**D43M. MECHANICAL ENGINEERING TECHNICIAN CERTIFICATE AND DIPLOMA COURSE**

This part-time day and evening course prepares students for a Technician Certificate/Diploma in Mechanical Engineering. Students are expected to be already suitably employed in Mechanical Engineering before commencing the course.

**Entrance Requirements**

Leaving Certificate or equivalent with passes in Mathematics, a Science subject (preferably Physics), English, and two other subjects or a Senior Trade Certificate with suitable endorsements.

**Course of Study**

*Stage I*—First and Second Year—Subjects: Mathematics, Engineering Science, Mechanics, Drawing, Instrumentation and Materials, Workshop Technology and Complementary Studies.

*Stage II*—Third and Fourth Year—Certificate Stage: At this stage three options are offered: Mechanical, Welding and Fluid Power Engineering. Common Subjects: Mathematics, Thermal and Fluid Plant, Electrotechnology and Industrial Instrumentation, Complementary Studies.

Mechanical Option: Mechanics, Drawing, Design and Engineering Materials, and Production Technology.

Welding Option: Design and Materials, Welding Technology, and Welding Inspection.

Fluid Power Option: Fluid Power I, Fluid Power Systems, and Machine Controls.

*Stage III*—Fifth and Sixth Years—Diploma Stage—At this stage an Instrumentation Option is offered on a part-time basis at present and candidates are expected to be employed in this field. Candidates are required to have passed the Certificate Stage with Credit, or to have at least one year's suitable experience together with a Pass Certificate.

Subjects: Mathematics, Mechanics, Complementary Studies, Electrotechnology and Electronics, Control Engineering, Industrial Instrumentation, Design, and Project Work.

**Examinations and other Requirements**

At the end of each year students take a College Examination which is moderated by the National Council for Educational Awards.

**Recognition by Professional Bodies**

Those who have successfully completed the Certificate Stage of this course meet the academic requirements for Technician status with the Institution of Engineers of Ireland, while those who have completed the Diploma Stage meet the Technician Engineer level and can qualify for the non-Corporate Associateship grade of membership after they have completed a suitable period of practical training.

**D43V. ENVIRONMENTAL/BUILDING SERVICES ENGINEERING TECHNICIANS CERTIFICATE COURSE**

This is a four-year part-time day course to prepare students in suitable employment for an Environmental/Building Services Engineering Technicians Certificate Course. It parallels Course D46H and follows a similar syllabus. The entrance standard is Leaving Certificate in five subjects including Mathematics or Senior Trade Certificate with endorsement or equivalent qualification.

**Subjects**

**Stage I—First and Second Years**

Mathematics, Mechanics, Engineering Science, Drawing, Instrumentation, Building Construction and Services and Complementary Studies.

**Stage II—Third and Fourth Years—Certificate Stage**

At this stage two options are available, Building Services and Refrigeration Technology.

Common Subjects: Mathematics, Thermal and Fluid Plant, Electrotechnology and Industrial Instrumentation, Complementary Studies.

Building Services Option: Environmental Engineering, Environmental Plant Design, Lighting, Acoustics and Water Services.

Refrigeration Technology Option: Refrigeration Plant, Refrigeration Design, Lighting, Acoustics and Water Services.



**D47. MECHANICAL ENGINEERING TECHNICIAN COURSE**

This part-time day course is intended to prepare suitable students for the City & Guilds of London examinations for Mechanical Engineering Technicians (255). The course is for technicians and draughtsmen engaged in the following types of employment:  
Machine Tool Operation, Jig & Tool Design, Engineering Production and Design Draughtsmen.

**Entrance Requirements** Elementary Stage Technological Certificate of the Department of Education examinations in Mechanical Engineering, Leaving Certificate or endorsement in Senior Craft Certificate.

**Course of Study** **First Year**  
Workshop Processes and Practice, Engineering Drawing and Materials, Engineering Science, Mathematics, General Studies.

**Second Year**  
Science and Mathematics, Drawing and Materials, Production Technology and General Studies.

**Third Year**  
Production Technology, Mathematics and Statistics, Metrology and Management Studies.

**Examinations and Other Requirements** At the end of the first year students take the Part I examination of the City & Guilds of London Institute No. 255, Part II at the end of the second year, and Part III at the end of the third year.

**D59. SHORT COURSE PROGRAMME**

A series of 2-5 day short courses on modern developments in Engineering Technology will be organised at different stages during the session. These may include:—

- (a) Low Cost Automation;
- (b) Fluid Power;
- (c) Maintenance Management Techniques;
- (d) Modern Production Methods;
- (e) New Developments in Welding Technology;
- (f) Fuel Technology;
- (g) Fire Safety;
- (h) CP110 and Structural Design;
- (j) New Materials;
- (k) Water Pollution Control;
- (l) Energy Conservation;
- (m) Engineering Costing and Estimating.

## Engineering EVENING COURSES

**E31**

### BUILDING SERVICES ENGINEERING

This course prepares students, with an Environmental Engineering Technician Diploma or equivalent qualification, for the new Part II Examination of the Chartered Institute of Building Services. (C.I.B.S.) It is a two year course and all applicants are expected to have a good background in Heating, Ventilating and Air Conditioning Engineering practice. Details of the syllabus and sample examination papers are available from the C.I.B.S. at 49 Cadogan Square, London SW1X 0JB.

**E41.**

### GRADUATE COURSES IN ENGINEERING

A 4-year course to prepare students for the examinations of Professional Engineering bodies including

- (1) Institution of Engineers of Ireland.
- (2) Council of Engineering Institutions (CEI) and its constituent bodies including:—
  - (a) The Institution of Mechanical Engineers;
  - (b) The Institution of Production Engineers;
  - (c) The Institution of Structural Engineers;
  - (d) The Institution of Municipal Engineers.

Courses are offered for both Part I and Part II stages provided there are sufficient applicants of a suitable educational standard.

Part I. Some or all of the following subjects may be offered: Mathematics, Mechanics, Thermodynamics, Electrotechnics, Properties of Materials and Presentation of Engineering Information.

Part II. Depending on demand the following subjects may be offered: The Engineer in Society, Mechanics and Properties of Materials, Fluid Mechanics, Structural Analysis, Structural Design, Thermodynamics, Organisation of large Constructions, Engineering Geology and possibly other subjects. Students are required to complete a laboratory programme as part of this stage.

Full details of the syllabus and examination regulations are contained in CEI Statement No. 10 available from the Council of Engineering Institutions, 2 Little Smith Street, London SW1. Price 50p.

Before entry applicants must meet the requirements of the appropriate Institution for Student Membership. They are urged to make early application to the Institution because it may take several months to process and it is not possible to sit the examination until this has been completed. Generally the requirements for the CEI are Advanced Level GCE in Mathematics and Physics and Ordinary Level GCE in English and two other subjects.



The requirement for student membership of the Institution of Engineers of Ireland is Leaving Certificate with Honours or GCE Advanced Level in Mathematics and a suitable Science subject together with four Ordinary Level subjects including English.

Certain Technician qualifications also meet the educational requirements for student membership and may give exemption from all or some subjects in Part I. Details are available from the appropriate Institution.

E42.

### **MECHANICAL ENGINEERING TECHNOLOGICAL CERTIFICATE COURSE**

This course is intended to prepare students for the Certificate examinations of the Department of Education in Mechanical Engineering as follows:

At the end of the First year—Elementary Stage, Subjects: Maths, Mechanics, Heat, Drawing.

At the end of the Second year—Intermediate Stage, Subjects: Maths, Mechanics, Heat Engines, Drawing.

At the end of the Third year—Advanced Stage, Subjects: Maths, Mechanics, Heat Engines, Drawing.

The entrance requirements are Department of Education Intermediate Certificate or Day Group Certificate with passes in Mathematics, English and a Science subject. Students with Leaving Certificate which includes a pass in Mathematics and a Science subject may enter the course at the second year stage.

E43C.

### **CIVIL ENGINEERING TECHNICIANS' CERTIFICATE AND DIPLOMA COURSE**

This is a six-year evening course to prepare students in suitable employment for a Civil Engineering Technicians' Certificate. It parallels Course D43C and Course D46C and follows a similar syllabus. The entrance requirement is Leaving Certificate or GCE in five subjects including Mathematics or equivalent qualification.

Subjects

#### **Stage I—First & Second Years**

Maths, Mechanics, Engineering Science, Drawing, Construction Technology, Surveying and Complementary Studies.

#### **Stage II—Third & Fourth Years — Certificate Stage**

Structural Design and Detailing, Engineering Materials, Surveying, Mathematics and Computation, Planning and Administration, Construction Services, Complementary Studies.

#### **Stage III—Fifth and Sixth Years — Diploma Stage**

At this stage two options are available, Municipal Engineering and Structural Engineering.

Common Subjects: Construction Management and Mathematics.

Municipal Option Subjects: Road Engineering, Sanitary Services, Planning, Design, Projects.

Structural Option Subjects: Structures, Steel Design, Municipal Engineering, Concrete Design and Projects.

Candidates are expected to be employed and gaining suitable experience in the appropriate field and are required to have passed the Certificate Stage with Credit or have at least one year's suitable experience together with a Pass Certificate.

E43M.

### **MECHANICAL ENGINEERING TECHNICIANS CERTIFICATE AND DIPLOMA COURSE**

This is a six-year evening course to prepare students in suitable employment for a Mechanical Engineering Certificate. It parallels Course D46M and D43M and follows a similar syllabus but more specialised options are available in both Fluid Power and Welding at Certificate level and Instrumentation at Diploma level. The entrance requirement is Leaving Certificate or G.C.E. in five subjects including Mathematics and English, or the Senior Trade Certificate with endorsement, or equivalent qualification.

Subjects

#### **Stage I—First & Second Years**

Mathematics, Engineering Science, Drawing, Mechanics, Instrumentation and Engineering Materials, Workshop Technology, Complementary Studies.

#### **Stage II—Third and Fourth Years — Certificate Stage**

At this stage three options are offered, Mechanical, Welding, and Fluid Power Engineering.

Common Subjects: Mathematics, Thermal and Fluid Plant, Electrotechnology and Industrial Instrumentation, Complementary Studies.

Mechanical Option: Mechanics, Drawing, Design and Engineering Materials, and Production Technology.

Welding Option: Design and Materials, Welding Technology and Welding Inspection.

Fluid Power Option: Fluid Power I, Fluid Power Systems and Machine Controls.



**Stage III—Fifth and Sixth Years — Diploma Stage**

At this stage an Instrumentation Option is offered at present and candidates are expected to be employed in this field. Candidates are required to have passed the Certificate stage with Credit or to have at least one year's suitable experience together with a Pass Certificate.

Subjects: Mathematics, Mechanics, Complementary Studies, Electrotechnology and Electronics, Control Engineering, Industrial Instrumentation, Design and Project Work.

### E43V. ENVIRONMENTAL/BUILDING SERVICES ENGINEERING TECHNICIAN CERTIFICATE COURSE

This is a four-year evening course to prepare students in suitable employment for an Environmental/Building Services Engineering Technicians Certificate Course. It parallels Course D46H and follows a similar syllabus. The entrance standard is Leaving Certificate in five subjects including Mathematics or Senior Trade Certificate with endorsement or equivalent qualification.

**Subjects****Stage I—First and Second Years**

Mathematics, Mechanics, Engineering Science, Drawing, Instrumentation, Building Construction and Services and Complementary Studies.

**Stage II—Third and Fourth Years — Certificate Stage**

At this stage two options are available, Building Services and Refrigeration Technology.

Common Subjects: Mathematics, Thermal and Fluid Plant, Electrotechnology and Industrial Instrumentation, Complementary Studies.

Building Services Option: Environmental Engineering, Environmental Plant Design, Lighting, Acoustics and Water Services.

Refrigeration Technology Option: Refrigeration Plant, Refrigeration Design, Lighting, Acoustics and Water Services.

### E44. MOTOR INDUSTRY MANAGEMENT COURSE

This is a two-year evening course to prepare students for the Final Associate Membership Examinations (External) of the Institute of the Motor Industry and the Final examination of the Institute of Road Transport Engineers.

Classes are held on two evenings per week for 30 weeks each year.

**Subjects**

Motor Industry Law.

Motor Industry Management.

Motor Industry Accountancy.

Motor Industry Administration and Organisation  
(Service Department, Parts Department or Vehicle Sales).  
Fleet Transport Management.

**Entrance****Qualifications**

Department of Education Advanced Motor Car Engineering Technological Certificate or the City and Guilds of London Institute Motor Vehicle Technicians Certificate Parts I and II (390).

### E47. MECHANICAL ENGINEERING TECHNICIAN COURSE

This is a three-year evening course to prepare students for the Part I, Part II and Part III examinations of the City & Guilds Institute for Mechanical Engineering Technicians Course (255). Students should have a suitable craft background and hold the Senior Craft Certificate with endorsement, Elementary Technological Certificate in Mechanical Engineering, GCE, Leaving Certificate or equivalent.

The course of study is as set out for Course D47 which is the parallel course operating by day.

### E49. AUTOMOBILE ENGINEERING COURSE

**Objective**

Department of Education Technological Certificate  
(Motor Car Engineering)

**Duration of Course**

5 years evening (9 hours per week).

**Subjects**

Motor Car Engineering.

Engineering Science and Mathematics.

Automobile Electricity.

Engineering Laboratory.

General Studies including English.

Drawing and Sketching.

Garage Organisation & Management

**Entrance****Qualifications**

Day Vocational Group Certificate or Intermediate Certificate with Honours in certain specified subjects.



**E50. COMPUTER PROGRAMMING COURSE**

This is a two-year course in which students are prepared for the City & Guilds Examination No. 746.

(Basic Certificate Computer Programming.)

**Entrance Qualifications** Leaving Certificate with suitable Commercial or Industrial experience related to computing.

**E54. STRUCTURAL DESIGN COURSE**

This is a one-year advanced course intended for those who wish to prepare for the Part III Design examination of the Institution of Structural Engineers. Depending on demand there may be options in Steel or Concrete Design.

**Entrance Qualifications** A degree in Civil or Structural Engineering or a pass in the IEI/CEI examinations or equivalent together with at least one year of suitable post-graduate experience in a structural design office.

**E57. INDUSTRIAL MANAGEMENT CERTIFICATE COURSE**

This two-year evening course is intended for engineering technicians and trainee production and industrial managers who wish to take the certificate examinations of the Institution of Industrial Managers.

**Entrance Requirements** Students should have reached the Leaving Certificate standard of general education and be suitably employed as managers or supervisors in industry.

**Course of Study**

**First Year**  
Production Analysis I, Economic Analysis, Organisation Analysis, Statistics.

**Second Year**  
Production Analysis II, Industrial Finance and Accounting, Psychology and Sociology, Industrial Relations.

**Examination and Other Requirements**

Students must pass a college examination at the end of each year. The examination is moderated by the Institution of Industrial Managers. Those who successfully complete the course will be exempt from the Certificate Examination requirements of the Institution of Industrial Managers and hence can qualify for Associate Membership of that body. Successful students are entitled to apply for the one year Diploma course of the I.I.M. at the School of Management Studies, Rathmines. Students are required to apply for student membership of the Institution within one month of enrolling for the Course.

**E58. REFRIGERATION ENGINEERING TECHNICIANS COURSE**

This is a one-year course for Technicians employed in the refrigeration engineering industry. Suitable students are prepared for the 257 City & Guilds of London Institute examinations in Science and Technology of Refrigeration. The subjects of instruction are: Science, Refrigeration Processes and Machinery, and Drawing.

**E60. DOMESTIC HEATING ENGINEERS' COURSE**

This two-year evening course prepares students for the examination of the Institute of Domestic Heating Engineers. Successful candidates will be eligible for entry to the Institute as Associate Members. The course is available only to those who are employed at a suitable level in the heating industry.

**Duration of Course** Two evenings per week over two years.

**Entrance Requirements** (a) Leaving Certificate or equivalent including Mathematics and Physics; or  
(b) Senior Trade Certificate in Plumbing; or  
(c) Heating and Ventilating Craft Certificate  
In appropriate cases applicants with approved practical experience may enrol at the discretion of the College.

Those who fail to satisfy the above requirement may be admitted to a Preliminary Course of one year's duration.

**Subjects** Heat Transfer; Combustion and Controls; Heating Systems and Equipment.



**E63. FIRE ENGINEERING COURSE**

This is a two-year course which prepares students for the Graduateship examinations of the Institution of Fire Engineers.

**Entrance Requirements** Leaving Certificate or equivalent standard and employment as a Fire Officer.

**Subjects** Science, Fireground Operations and Equipment, Fire Prevention and Protection.

**E45. AERONAUTICAL ENGINEERING TECHNICIAN CERTIFICATE COURSE**

This course is intended for engineering apprentices employed in the Aviation Industry preparing for the Aeronautical Engineering Technician Certificate examinations of the City & Guilds of London Institute (Course 258 Part II) and the I.C.A.O. Licensed Maintenance Engineers Licenses issued by the Department of Transport & Power.

**Entrance Requirements** Complete apprenticeship in appropriate engineering trade and employment in the Aviation Industry.

**E46. FLIGHT DISPATCHER (Flight Operations Officer) COURSE**

**Purpose** This course provides instruction in Air Legislation, Meteorology, Navigation, Technical Communications, Simulated Instrument Flight, Air Traffic Control, and Flight Dispatching for personnel wishing to take the F.A.A./I.C.A.O. Flight Dispatcher (Flight Operations Officer) examinations.

**Duration** One year, two evenings per week.

**Entrance Requirements** Employed in Air Traffic Control operations.

**E48. AIRCRAFT TECHNICAL SUPPORT COURSE**

This course provides instruction for personnel employed in the aircraft back-up facility areas, e.g. Stores, Purchasing Supplies, Progress Chasing, Method Study and Work Study.

**Duration** It is a one-year course requiring attendance on two evenings per week.

**Entrance Requirements** Employment in the Aviation Industry.

**E51. PRODUCTION PLANNING COURSE (I.A.T.A.)**

This course provides instruction for personnel employed in the Planning Department of the Aeronautical Industry. The course covers Aircraft Organisation and Practice, Aircraft Operational and Production Technology.

**Entry Requirements** Personnel employed in Planning Departments in the Industry, or holders of the City and Guilds of London Institute Certificate Course 258, Part II.

**Duration of Course** 3 evenings per week (290 hours plus 70 hours Aeronautical Projects).

**MAINTENANCE ENGINEERS LICENCES OF THE DEPARTMENT OF TRANSPORT AND POWER**

- E52A. 'A' LICENCE—B.A.C. 1-11
- E52B. 'A' LICENCE—B.707 B.720
- E52C. 'A' LICENCE—B.737
- E52D. 'A' LICENCE—B.747
- E52F. 'C' LICENCE—P & W JT3 SERIES
- E52G. 'C' LICENCE—P & W JT8D
- E52H. 'C' LICENCE—P & W JT9D
- E52J. 'C' LICENCE—ROLLS ROYCE SPEY
- E52M. 'X' LICENCE—INSTRUMENTS
- E52N. 'X' LICENCE—ELECTRICAL
- E52P. 'X' LICENCE—RADIO
- E52Q. 'X' LICENCE—RADIO (RADAR ENDORSEMENT)

The above courses provide instruction for Aircraft Maintenance Engineers, wishing to take the appropriate licence examinations of the Department of Transport and Power. The courses are of one year's duration requiring attendance on two evenings per week.

**Entrance Requirements** Basic Aeronautical Engineering Certificate in appropriate category.



#### Technological and Technician Courses

### E53. AVIONIC DIGITAL TECHNIQUES COURSE

This is a four-year evening course for personnel employed in the Aircraft Industry in Electrical, Instrument and Radio Environments.

**Entry Requirements** Aeronautical Engineering Certificate in the appropriate category or equivalent.

### BASIC AERONAUTICAL ENGINEERING CERTIFICATES OF THE DEPARTMENT OF TRANSPORT AND POWER

- E55A. AIRFRAMES UNPRESSURISED (B.A.E.C. 1)
- E55B. AIRFRAMES PRESSURISED (B.A.E.C. 2)
- E55C. PISTON ENGINES (B.A.E.C. 3)
- E55D. TURBO-PROP & TURBO-JET ENGINES (B.A.E.C. 4)
- E55E. HELICOPTERS (LESS ENGINES) (B.A.E.C. 5)
- E55F. ELECTRICAL (B.A.E.C. 6)
- E55G. RADIO (B.A.E.C. 7)
- E55H. INSTRUMENTS (B.A.E.C. 8)

The above courses are of one year's duration requiring attendance for two evenings (6 hours) weekly per session. The courses are designed to prepare students for the Basic Aeronautical Engineering Certificate examinations of the Department of Transport and Power.

**Entrance Requirements** Employment in the Aeronautical Engineering Industry.

### E56A. PRIVATE AIRCRAFT PILOTS LICENCE E56B. PRIVATE PILOTS LICENCE INSTRUMENT RATING

These courses provide instruction in Meteorology, Navigation, Air Legislation and Aero Laboratory (Technical) for personnel wishing to take the Department of Transport and Power Private Pilots Licence and the Private Pilots Licence Instrument Rating.

## TRADE AND OTHER COURSES



## School of Trades

## School of Trades

Although most of the apprentices are released directly from industry, an increasing number of first year apprentices are receiving formal "off-the-job" training in industrial or AnCO training centres in the practical skills of their trade and are released to attend classes in the other course subjects. In subsequent years their training and education requirements are provided by the College. Post apprenticeship courses are provided where a demand for these courses exists, and opportunities are available for students who are successful in the Senior Trade Certificate Examination to proceed to higher level courses.

Evening courses in trade subjects, mainly at the more advanced levels are organised on the basis of attendance on two evenings weekly, and provision is made for students to take the appropriate trade examinations. The School also provides a four year evening course in Building Construction and associated subjects for those employed in the construction industry.

The School of Trades offers day release, block release and evening courses for apprentices, craftsmen and technicians actually engaged in appropriate (the construction, furniture, vehicle body building and metal fabrication) industries. The courses for apprentices in these industries are organised mainly on a day release basis with additional evening classes in the first year. The students are released from their employment on full pay to attend classes. The courses are designed to cover the requirements of the Junior and Senior Trade Certificate examinations of the Department of Education and corresponding examinations of the City & Guilds of London Institute. The subjects covered on these courses include the relevant trade theory and practice, together with Drawing, Engineering Science, Mathematics, Social Science, English and General Studies.



## DAY COURSES

### D101. BRICKWORK — DAY RELEASE

This course requires attendance on one day and one evening per week for the First and Second Year and one day only per week thereafter. The course is designed to allow students to take the Junior and Senior Trade Certificate examinations (Practical and Written) of the Department of Education and the City & Guilds of London Institute Craft Certificate Examinations.

**Entrance Requirements** Apprenticeship to the trade.

### D101A. BRICKWORK — OFF-THE-JOB COURSE

This course meets the requirements of apprentices who are attending full-time for one year at an AnCO Training Centre. Students attend the College on one day and one evening per week during this one year course. The course is designed to allow students to take the Junior Trade Certificate Examination of the Department of Education.

**Entrance Requirements** Enrolment as an apprentice in an approved Training Centre.

### D102. PLASTERWORK — DAY RELEASE

This course requires attendance on one day and one evening per week for the First and Second Year and one day only per week thereafter. The course is designed to allow students to take the Junior and Senior Trade Certificate examinations (Practical and Written) of the Department of Education and the City & Guilds of London Institute Craft Certificate Examinations.

**Entrance Requirements** Apprenticeship to the trade.

### D102A. PLASTERWORK — OFF-THE-JOB COURSE

This course meets the requirements of apprentices who are attending full-time for one year at an AnCO Training Centre. Students attend the College on one day and one evening per week during this one year course. The course is designed to allow students to take the Junior Trade Certificate Examination of the Department of Education.

**Entrance Requirements** Enrolment as an apprentice in an approved Training Centre.

### D105. PAINTING AND DECORATING — DAY RELEASE

This course requires attendance on one day and one evening per week for the First and Second Year and one day per week thereafter. The course is designed to allow students to take the Junior and Senior Trade Certificate examinations (Practical and Written) of the Department of Education and the City & Guilds of London Institute Craft Certificate Examinations.

**Entrance Requirements** Apprenticeship to the trade.

### D105A. PAINTING AND DECORATING — OFF-THE-JOB COURSE

This course meets the requirements of apprentices who are attending full-time for one year at an AnCO Training Centre. Students attend the College on one day and one evening per week during this one year course. The course is designed to allow students to take the Junior Trade Certificate Examination of the Department of Education.





**Entrance  
Requirements**

Enrolment as an apprentice in an approved Training Centre.

**D107.****VEHICLE BUILDING — DAY RELEASE**

This course requires attendance on one day and one evening per week for the First and Second Year and one day per week thereafter. The course is designed to allow students to take the City & Guilds of London Institute Examinations in Vehicle Body Craft Studies Part I and Part II.

**Entrance  
Requirements**

Apprenticeship to the trade.

**D111.****CABINETMAKING/CHAIRMAKING — DAY RELEASE**

This course requires attendance on one day and one evening per week for the First and Second Year and one day per week thereafter. The course is designed to allow students to take the Junior and Senior Trade Certificate Examinations (Practical and Written) of the Department of Education.

**Entrance  
Requirements**

Apprenticeship to the trade.

**D111A.****CABINETMAKING/CHAIRMAKING — OFF-THE-JOB  
COURSE**

This course meets the requirements of apprentices who are attending full-time for one year at an AnCO Training Centre. Students attend the College on one day and one evening per week during this one year course. The course is designed to allow students to take the Junior Trade Certificate Examination of the Department of Education.

**Entrance  
Requirements**

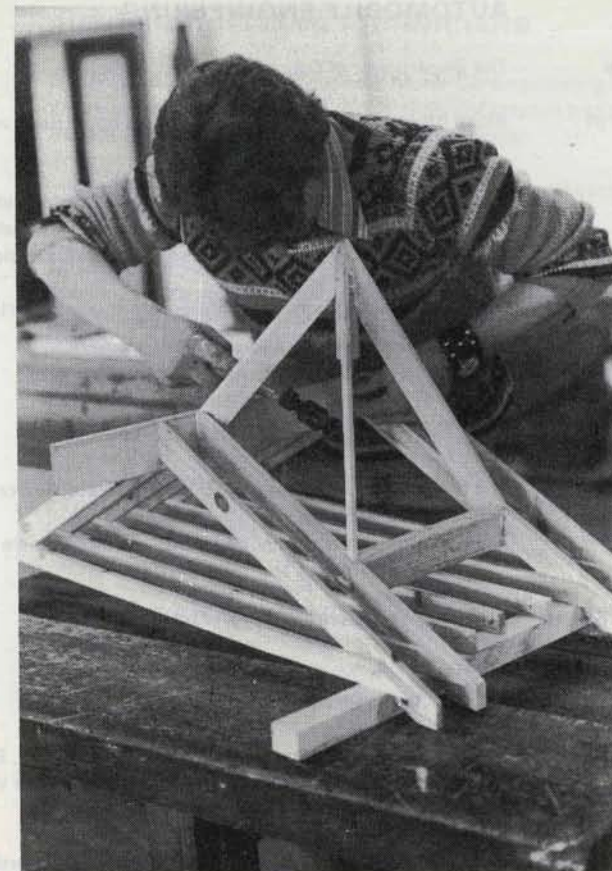
Enrolment as an apprentice in an approved Training Centre.

**D121.****CARPENTRY AND JOINERY — DAY RELEASE**

This course requires attendance on one day and one evening per week of the First and Second Year and one day thereafter. The course is designed to allow students to take the Junior and Senior Trade Certificate Examinations (Practical and Written) of the Department of Education and the City & Guilds of London Institute. The Junior examination is taken after two years and the Senior examination after four years. Students who complete the course satisfactorily can proceed to more advanced courses leading to City & Guilds of London Institute Examinations.

**Entrance  
Requirements**

Apprenticeship to the trade.

**D122.****WOODCUTTING MACHINIST — DAY RELEASE**

This course requires attendance on one day and one evening per week for the First and Second Year and one day per week thereafter. The course is designed to allow students to take the Junior and Senior Trade Certificate Examinations (Practical and Written) of the Department of Education and the City & Guilds of London Institute. The Junior examination is taken after two years and the Senior examination after four years. Students who complete the course satisfactorily can proceed to more advanced courses leading to City & Guilds of London Institute Examinations.

**Entrance  
Requirements**

Apprenticeship to the trade.



**D126. AUTOMOBILE ENGINEERING**

<b>Objective</b>	The Department of Education Trade Certificates.
<b>Duration of Course</b>	Block Release Course of 11 weeks of 35 hours each week.
<b>Subjects</b>	Garage Practice, Motor Workshop Practice, Motor Vehicle Theory, Motor Vehicle Science and Electricity, Mathematics and Craft Calculations, Technical Drawing, General Studies, Physical Education.
<b>Entrance Qualifications</b>	Day Vocational Group Certificate or Intermediate Certificate.

**D127. AUTOMOBILE ENGINEERING**

<b>Objective</b>	The Department of Education Trade Certificate, Junior and Senior Stage, with endorsements and The City and Guilds of London Institute Motor Vehicle Mechanics Certificate (380) Part I and (381) Part II.
<b>Duration of Course</b>	4 years of 38 weeks each year.
<b>Attendance</b>	1 day (7 hours) and 2 evenings (6 hours) each week.
<b>Subjects</b>	Motor Vehicle Technology, Motor Vehicle Electricity, Engineering Science, Mathematics, Technical Drawing, Garage and Motor Workshop Practice, General Studies.
<b>Entrance Qualifications</b>	Day Vocational Group Certificate or Intermediate Certificate.

**D130. MOTOR VEHICLE PARTSMEN**

<b>Objective</b>	The City and Guilds of London Institute Motor Vehicle Parts Certificate (381) Part II.
<b>Duration of Course</b>	2 years part-time day and evening course (9 hours per week).
<b>Subjects</b>	Parts Merchandising, Commercial Practice and Office Procedures, Stores Administration, Motor Vehicle Knowledge, General Studies including English.
<b>Entrance Qualifications</b>	(380) Part I of the Certificate.

**D134. AUTO-ENGINEERING TECHNICIANS**

<b>Objective</b>	Department of Education Advanced Motor Car Engineering Technological Certificate and the 390 Part II City & Guilds of London Institute Motor Vehicle Technicians' Full Technological Certificate.
<b>Duration of Course</b>	1 year part-time day (7 hours) and 2 evenings (6 hours) each week for 38 weeks.
<b>Subjects</b>	Motor Car Engineering, Automobile Electricity, Heat Engines, Applied Mechanics, Garage Organisation and Management.
<b>Entrance Qualifications</b>	Department of Education Intermediate Motor Car Engineering Technological Certificate (2 subjects) or the 390 City & Guilds of London Institute Parts I and II Certificate.

**D136. AUTOMOBILE ENGINEERING**

Refresher courses. Short courses of 3 days' duration on modern developments and techniques in the industry for qualified motor mechanics.

**D140. FITTING AND TURNING**

<b>Objective</b>	Department of Education Trade Certificate (Senior Stage only).
<b>Duration of Course</b>	Two years of day release (1 day each week) for third and fourth year apprentices.
<b>Subjects</b>	Workshop Practice and Workshop Technology.
<b>Entrance Qualifications</b>	Department of Education Junior Trade Certificate or equivalent.



## **FITTING AND TURNING**

This course is organised for fitting and turning apprentices attending "off-the-job" courses in Training Centres.

<b>Objective</b>	Department of Education Junior Trade Certificate with endorsements.
<b>Duration of Course</b>	One year of day release (1½ days and 1 night each week).
<b>Subjects</b>	Workshop Technology, Mathematics & Craft Calculations, Technical Drawing, General Studies, Engineering Science.
<b>Entrance Qualifications</b>	Day Vocational Group Certificate or Intermediate Certificate or equivalent.

## **D141. FITTING AND TURNING**

<b>Objective</b>	Department of Education Junior and Senior Trade Certificates with endorsements.
<b>Duration of Course</b>	Four years of block release (11 weeks each year).
<b>Subjects</b>	Workshop Practice, Workshop Technology, Mathematics and Craft Calculations, Physical Education, Technical Drawing, General Studies, Engineering Science.
<b>Entrance Qualifications</b>	Day Vocational Group Certificate or Intermediate Certificate or equivalent.

## **D145. FOUNDRY MOULDER/COREMAKER – BLOCK RELEASE**

This course is conducted at intervals to meet the needs of the Foundry Industry. Students are nominated by their employers or are sponsored by AnCO – The Industrial Training Authority. The course is based on the syllabus for foundry craft studies of the City & Guilds of London Institute and normally entails attending four Block Release courses, each of 11 weeks duration spread over a 4 year cycle. The course involves both practical and theoretical training in Safe Working Practice, Materials, Methods, Equipment and Related Studies. In cases where students are employed in foundries outside the Dublin area, a one year off-the-job course may be provided entailing full-time attendance for one year and Block Release attendance for a further two years.

<b>Entrance Requirements</b>	Intermediate or Day Vocational Group Certificate and be employed as an apprentice in the Foundry Industry.
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## **D149. SHEET METALWORK – DAY RELEASE**

This course requires attendance on one day and one evening per week for the First and Second Year and one day per week thereafter. The course is designed to allow students to take the Junior and Senior Trade Certificate Examinations (Practical and Written) of the Department of Education and the City & Guilds of London Institute. Generally, students take the Junior Stage examination after two years and the Senior Stage after four years. Students who complete the course satisfactorily can proceed to more advanced courses leading to City & Guilds of London Institute qualifications.

<b>Entrance Requirements</b>	Employment as a Sheet Metalwork apprentice.
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**D150.****METAL FABRICATION — DAY RELEASE**

This course requires attendance on one day and one evening per week for the First and Second Year and one day per week thereafter. The course is designed to allow students to take the Junior and Senior Trade Certificate Examinations (Practical and Written) of the Department of Education and the City & Guilds of London Institute. Generally, students take the Junior Stage examination after two years and the Senior stage examination after four years. Students completing the course in a satisfactory manner can proceed to City & Guilds of London examinations.

**Entrance  
Requirements**

Employment as a Metal Fabrication apprentice.

**D151.****PLUMBING — DAY RELEASE**

This course requires attendance on one day and one evening per week for the First and Second Year and one day per week thereafter. The course is designed to allow students to take the Junior and Senior Trade Certificate Examinations (Practical and Written) of the Department of Education. The Junior examination is taken after two years and the Senior examination after four years. Students who complete the course satisfactorily can proceed to more advanced courses leading to City & Guilds of London Institute Examinations or to Environmental Engineering Technician Courses.

**D151A.****PLUMBING — OFF-THE-JOB COURSE**

This meets the requirements of apprentices who are attending full-time for one year at an AnCO Training Centre. Students attend the Centre for four days each week and in the remaining day and one evening per week they attend the College for Trade Technology, Mathematics, Science etc. At the end of the year students take the Junior Trade Certificate Examination (Practical and Written) and if successful may proceed to the 3rd Year of the course in the next term.

**Entrance  
Requirements**

Employment in the Plumbing and Heating Industry as an apprentice.

**D151B.****PLUMBING — BLOCK RELEASE**

This requires full-time attendance for 11 weeks each year over a period of two years after which students revert to the Day Release course, as already outlined, for a further two years. It is designed to meet the requirements of apprentices who may be involved in contract work in the country.

**D154.****AERONAUTICAL ENGINEERING CRAFT STUDIES**

This is a one-year course requiring attendance of one day and two evenings (13 hours) weekly per session. This course is designed to prepare students for the Part I of the City and Guilds of London Institute examinations in Aeronautical Engineering Craft Studies.

**Entrance  
Requirements**

Day Vocational Group Certificate, Intermediate Certificate or equivalent and be employed in the Aeronautical Engineering Industry.

**D154A.****AERONAUTICAL ENGINEERING CRAFT STUDIES  
(Mechanical)****D154B.****AERONAUTICAL ENGINEERING CRAFT STUDIES  
(Avionics)**

The above courses are designed to prepare students for Part II of the City and Guilds of London Institute Examinations in Aeronautical Engineering Craft Studies (Course No. 208). Students may specialise in Mechanical Engineering or Avionics. Classes are held on one day and two evenings per week.

**Entrance  
Requirements**

Part I City and Guilds Aero Engineering Craft Studies.



## E101 BRICKWORK

This course is designed to assist students to prepare for the Senior Trade Certificate Examinations of the Department of Education and the Advanced Certificates of the City & Guilds of London Institute.

**Duration** One year, one evening per week.

**Subjects** Trade Theory & Drawing.

**Entry Requirements** Prospective students must have completed 3 years of apprenticeship and hold the department of Education Junior Trade Certificate.

## E102 PLASTERING

This course is designed to assist students to prepare for the Senior Trade Certificate Examination of the Department of Education and the Advanced Certificates of the City & Guilds of London Institute.

**Duration** One year, one evening per week

**Subjects** Trade Theory & Drawing

**Entry Requirements** Prospective students must have completed 3 years of apprenticeship and hold the Department of Education Junior Trade Certificate.

## E105 PAINTING & DECORATING

This course is designed to assist students to prepare for the Senior Trade Certificate Examination of the Department of Education and the Advanced Certificates of the City & Guilds of London Institute.

**Duration** One year one evening per week

**Subjects** Trade Theory & Drawing

**Entry Requirements** Prospective students must have completed 3 years of apprenticeship and hold the Dept. of Education Junior Trade Certificate.

## E107 VEHICLE BODY BUILDING

This course is designed to assist students to prepare for appropriate advanced Certificate Examinations of the City & Guilds of London Institute.

**Duration** One year, one evening per week

**Subjects** Trade Theory & Drawing

**Entry Requirements** Prospective students must have completed 3 years of apprenticeship and have passed the City & Guilds of London Institute Certificate Examination Part I Vehicle Body Building & Repair.

## E111 CABINETMAKING - CHAIRMAKING

This course is designed to assist students to prepare for the Senior Trade Certificate Examination of the Department of Education and the Advanced Certificates of the City & Guilds of London Institute.

**Duration** One year, one evening per week

**Subjects** Trade Theory & Drawing

**Entry Requirements** Prospective students must have completed 3 years of apprenticeship and hold the Department of Education Junior Trade Certificate.

## E121. CARPENTRY AND JOINERY - ADVANCED

This course is designed to assist senior apprentices and craftsmen to prepare for the Senior Trade Certificate Examination of the Department of Education and the Advanced Certificate of the City & Guilds of London Institute.

**Duration** One year, two evenings per week.

**Subjects** Trade Theory, Trade Practice and Drawing.

**Entry Requirements** Prospective students must have passed the Junior Trade Certificate examination in Carpentry and Joinery.



**E133. COMPRESSION IGNITION COURSE**  
379 City & Guilds of London Institute Compression Ignition Engines Mechanics Certificate.

**Duration of Course** 2 years evening (6 hours per week).

**Subjects** Compression Ignition Engine Technology.  
Compression Ignition Engine Maintenance.  
Fuel Injection System Maintenance.

**Entrance Qualifications** Department of Education Senior Trade Certificate or equivalent.

**E134. FORK LIFT TRUCK MAINTENANCE COURSE**

**Duration of Course** 6 weeks of 5 hours each week (30 hours).

**Subjects** Electro-Hydraulic Equipment, i.e. Engine Overhaul and Maintenance.

**Entrance Qualifications** Senior Group Trade Certificate of the Department of Education.

**E136. MOTOR MECHANICS' WORK**  
**Refresher course for Motor Mechanics**

**Duration of Course** 6 weeks of 5 hours each week (30 hours).

**Subjects** Fault Diagnosis and the use of Diagnostic Service Equipment and Instruments on:  
Petrol Engines.  
Petrol Injection Units.  
Automatic Transmission Units.  
Front End and Power Steering.  
Brakes and Suspension Units.  
Automobile Electrical Units.

**Entrance Qualifications** Senior Trade Certificate of the Department of Education.

**E142. MECHANICAL ENGINEERING MAINTENANCE OR MACHINING**

**Objective** The City and Guilds of London Institute Mechanical Engineering Craft studies Course No. 205, Part II and Part III. Students take Part II of the examination at the end of the first year of the Course and Part III at the end of the second year.

**Duration of Course** Two years (2 evenings per week).

**Subjects** Workshop Laboratory, Workshop Technology and Project Work.

**Entrance Qualifications** Department of Education Junior Trade Certificate or equivalent and current attendance on block or day release courses.

**E143A. SHORT COURSE IN WELDING**

This course is designed to meet the needs of craftsmen employed in the engineering or allied industries who have little or no knowledge of welding. It is a basic course covering both gas and electric-arc welding. Each course is of six weeks duration, meeting on two evenings each week from 7.00 p.m. to 9.30 p.m.

**Entry Requirements** Employment as a craftsman in the engineering or allied trades.

**E149. SHEET METAL WORK -- ADVANCED**

This advanced evening course is conducted on two evenings per week and prepares students for the City & Guilds of London — Part III — Examination in Sheet Metal and Thin Plate Craft Studies. no. 216

**Entry Requirements** Employment in the sheet metal trade and hold the Department of Education Senior Trade Certificate in Sheet Metal Work or equivalent.



**E149A SHEET METAL WORK**

This course is designed to assist Senior Craftsmen to prepare for the Senior Trade Certificate Examination of the Department of Education.

**Duration** One year, one evening per week

**Subjects** Trade Theory & Drawing

**Entry Requirements** Prospective students must have completed 3 years of apprenticeship and hold the Department of Education Junior Trade Certificate.

**E150. METAL FABRICATION -- ADVANCED**

This advanced evening course is conducted on two evenings per week and prepares students for the City & Guilds of London Institute -- Part III -- Examination in Structural and Thick Plate Craft Studies No 217

**Entry Requirements** Employment in the metal fabrication trade and hold the Department of Education Senior Trade Certificate in Metal Fabrication or equivalent.

**E150A METAL FABRICATION**

This course is designed to assist Senior Apprentices and craftsmen to prepare for the Senior Trade Certificate Examination of the Department of Education.

**Duration** One year, one evening per week

**Subjects** Trade Theory & Drawing

**Entry Requirements** Prospective apprentices must have completed 3 years of apprenticeship and have passed the Junior Trade Certificate

**E151. PLUMBING -- ADVANCED**

This is a two year course requiring attendance for two evenings weekly per session. The course is of an advanced standard and is designed to prepare students for the City & Guilds of London Institute Examinations for the Plumbing Advanced Craft Certificates (Course 596).

**Entry Requirements** Department of Education Senior Trade Certificate (Practical and Written) in Plumbing or equivalent and be employed in the Plumbing and Heating Industry.

**E151A PLUMBING**

This course is designed to assist Senior Apprentices and Craftsmen to to prepare for the Senior Trade Certificate Examination of the Department of Education

**Duration** One year, one evening per week

**Subjects** Trade Theory & Drawing

**Entry Requirements** Prospective apprentices must have completed 3 years of apprenticeship and have passed the Junior Trade Certificate

**E154. AERONAUTICAL ENGINEERING CRAFT STUDIES**

This is a one-year evening course requiring attendance for two evenings (6 hours) weekly per session. The course is designed to prepare students for Part I of the City and Guilds of London Institute Examinations in Aeronautical Engineering Craft Studies (Course 208).

**Entrance Requirements** Day Vocational Group Certificate or Intermediate Certificate and be employed in the Aeronautical Engineering Industry.

**E154A. AERONAUTICAL ENGINEERING CRAFT STUDIES (Mechanical)****E154B. AERONAUTICAL ENGINEERING CRAFT STUDIES (Avionics)**

The above courses are designed to prepare students for Part II of the City and Guilds of London Institute Examination in Aeronautical Engineering Craft Studies (Course No. 208). Students may specialise in Mechanical Engineering or Avionics. Classes are held on two evenings per week.

**Entrance Requirements** Part I City and Guilds Aero Engineering Craft Studies.



## Printing + Book Production



The School provides courses at technological, technician and apprentice level in the following disciplines:

### COMPOSING

The Composing Department covers the requirements of the Department of Education Syllabus up to Senior level. The curriculum includes instruction in Theory, Practice, Typographic Design, Mechanical Composition, Phototypesetting, Direct Impression Composition, Paper Paste-up, Film Assembly, Planning, Applied Science, Industrial Studies and Irish.

### PHOTOTYPOGRAPHY

Courses in this section are for training suitably qualified personnel in the use of phototypesetting and direct impression composition equipment. There are courses in Paper Paste-up and Film-make-up, combined with Photo Headliner setting techniques; also planning for Nyloprint and Litho platemaking.

## Printing + Book Production

### LETTERPRESS MACHINE PRINTING

The Letterpress Department covers the requirements of the Department of Education Syllabus up to Senior level. The curriculum includes instruction in Theory, Practice, Applied Science, Industrial Studies and Irish.

### LITHOGRAPHY AND PHOTO LITHOGRAPHY

The Lithographic Department covers the requirements of the Department of Education Syllabus up to Senior level. The course provides a sound training in Photolithographic platemaking, step and repeat work and offset printing. It includes instruction in the Theory and Practice of Platemaking and Press operation, Applied Science and Industrial Studies.

### BOOKBINDING AND PRINT FINISHING

The Bookbinding Department covers the requirements of the Department of Education Syllabus up to Senior level. The course provides experience in hand and mechanised bookbinding, finishing and print finishing processes and includes instruction in technical Theory and Practice, Applied Printing, Applied Science, Design and Industrial Studies.



## TECHNICIAN COURSES

**D80.**

### TECHNICIAN CERTIFICATE IN PRINTING

This course is designed to provide instruction for persons contemplating taking up employment in an administrative capacity in the printing industry. The syllabus will cover the technology and technique of phototypesetting direct impression composition, paper paste-up, film make-up, planning, mechanical composition, letter assembly, camera work, offset lithographic and letterpress printing, design for printing, print finishing, paper technology, cost accountancy, estimating, production planning, purchasing, stock control and marketing. It is a whole-time course of two years' duration.

#### Entrance Requirements

Leaving Certificate of the Department of Education with passes in five subjects, or equivalent qualification.

**D82.**

### TRAINING FOR ADMINISTRATIVE STAFF

This course is intended for those engaged in the administrative side of printing with a view to preparing them for higher administrative posts in the industry.

The age group for trainees is between 18 and 24 years.

The course occupies three years and attendance for one day and two evenings each week is required.

#### Year One

Principles of Accounts, Structure of Commerce, Office Practice, Practical appreciation of the techniques of composing, Bookbinding and Print Finishing; Graphic Reproduction; General Technical Knowledge.

#### Year Two

Printing Office Procedure, Practical appreciation of the techniques of letterpress machine printing, photo-litho plate-making and offset lithographic printing; photo-composition, direct impression composition, film and paper paste-up; Cost Accountancy for Printers, Estimating for Printers, Production Planning.

#### Year Three

Industrial Law, Work Study, Communications in Industry, Principles of Management, Financial Accounting, Cost Accountancy for Printers, Estimating for Printers, Business Organisation, Production Planning.

## TRADE COURSES

These courses are for apprentices and young journeymen in the Printing and Bookbinding Trades. Every facility is given to students who wish to enter for the Trade Certificate Examinations of the Department of Education. These examinations are conducted in the College at the end of the session. The courses are based on the examination syllabuses of the Department. Generally, students take the Junior Stage of the Trade Certificate Examinations of the Department of Education after one year's instruction, the Intermediate stage after two years' instruction, and the Senior Stage after three years.

**D183.**

### LETTERPRESS MACHINE PRINTING

(Block-release course)

Consecutive courses of 12 weeks' duration for apprentices. During each course the apprentices attending complete a stage of the Department of Education's syllabuses for the Junior, Intermediate and Senior Trade Certificate Examinations in Letterpress Machine Work. An examination in each stage is set by the Department of Education at the conclusion of each course.

**D190.**

### COMPOSING

(Block-release Course)

Consecutive courses of 12 weeks' duration for apprentices. During each course the apprentices attending complete a stage of the Department of Education's syllabuses for the Junior, Intermediate and Senior Trade Certificate Examinations in Composing. An examination in each stage is set by the Department of Education at the conclusion of each course.

**D191.**

### BOOKBINDING

(Block-release Course)

A block-release course of 12 weeks' duration for apprentices. During each course, the apprentices attending complete a stage of the Department of Education's syllabuses for the Junior, Intermediate and Senior Trade Certificate examinations in Bookbinding. An examination in each stage is set by the Department of Education at the conclusion of each course.

**D192.**

### LITHOGRAPHY AND PHOTO-LITHOGRAPHY

(Block-release Course)

Consecutive courses of 12 weeks' duration for apprentices. During each course the apprentices attending complete a stage of the Department of Education's syllabus for the Junior Intermediate and Senior Trade Certificates Examination in Lithography and Photo-Lithography Work. An examination in each stage is set by the Department of Education at the conclusion of each course.



**D181.**

**BOOK PRODUCTION FOR LIBRARIANS**

A one-year course for students of the Diploma in Librarianship run in conjunction with U.C.D.

**Entrance  
Requirements**

Per U.C.D.

**D193.**

**ARCHIEVAL STUDIES**

A one-year part-time course designed to cover aspects of book production and printing for post-graduate students of Diploma in Archival Studies in U.C.D.

**D196.**

**ADVANCED LINOTYPE, INTERTYPE AND  
TELETYPESETTING**

An intensive post-apprenticeship course in practical training for craftsmen. Held on Monday, Tuesday, Wednesday and Thursday from 3.30 to 7.30 p.m.

**D199.**

**PHOTOTYPESETTING**

This is a practical course for suitably qualified personnel on a wide range of modern phototypesetting and direct-impression composition equipment. Equipment includes: Pacesetter Mk IV, Linoscreen Visual Display Unit, Linocomp Direct Input Phototypesetter with electronic tape reader, Varicomp 1100 keyboard, Linotype Paul NJ200 keyboard, IBM 72 Composer, IBM Electronic Composer, Linofilm Keyboard and Photo Unit. The course will be held over a period of 13 weeks with attendance on one half-day per week.

**D200.**

**SCREEN PROCESS PRINTING**

The course provides training and education for apprentices to Screen Process Printing. Attendance is on one day per week from September to June. The curriculum includes the production of positives for stencil making, production of handcut and photographic stencils, screen preparation and printing, applied science, design and applied printing.

# Printing + Book Production

## EVENING COURSES

**E83.**

**APPLIED PRINTING**

A course requiring attendance for 2 evenings each week designed to provide those engaged in the Clerical and Administrative side of Printing with a general knowledge of the crafts involved in modern printing and of the materials and appliances used. Students who complete the course may enter the General Technical Knowledge examination of the British Printing Industries Federation. It is necessary to have passed the General Technical Knowledge examination to be accepted as a candidate for the Following:

- (a) Estimating examination of the British Printing Industries Federation.
- (b) Printing Office Procedure examination of the British Printing Industries Federation.

**E84A.**

**COST ACCOUNTANCY FOR PRINTERS**

A course requiring attendance for two evenings each week designed to prepare students for the examination of the British Printing Industries Federation.

**Entrance  
Qualifications**

Royal Society of Arts Certificate in Accounting and Office Procedure, or equivalent.

**E84B.**

**ESTIMATING FOR PRINTERS**

A course requiring attendance for two evenings each week designed to prepare students for the examination of the British Printing Industries Federation.

**Entrance  
Qualifications**

Leaving Certificate and General Technical Knowledge Certificate of the British Printing Industries Federation.

**E85.**

**PAPER TECHNOLOGY AND MARKETING**

A 2-year course for employees of Paper Mills and Paper Merchants' and Printers' employees engaged in the handling of paper transactions. Students are prepared for the examination of the National Association of Paper Merchants.

**Entrance  
Qualifications**

Leaving Certificate.



**E86.****DESIGN FOR PRINTING**

This is a two-year course to prepare students for the City & Guilds of London Institute examination in Design for Printing. Classes are held on one evening per week.

**Entrance Requirements**

Department of Education Leaving Certificate or Department of Education Senior Certificate in a graphic arts subject or other equivalent qualification.

**E89A.****PRINTING PRODUCTION MANAGEMENT (DEPARTMENTAL)****Duration of Course**

A one-year course requiring attendance at the College for three evenings per week (6 hours).

**Entrance Requirements**

City & Guilds of London Institute Advanced Certificate in one of the following: Composing; Letterpress Machine Printing; Lithography and Photo Lithography; Bookbinding and Print Finishing. Mature students with experience in the industry but who do not possess any of the foregoing qualifications may, in exceptional cases, be admitted to the course.

**Subjects**

Aspects of departmental management; human relations and communications in industry; production organisation; production processes.

**Objectives of Course**

City & Guilds of London Institute Certificate in Printing Production Management (Departmental).

**E89B.****PRINTING PRODUCTION MANAGEMENT (WORKS)****Duration of Course**

A two-year course requiring attendance at the College for two evenings (4 hours) weekly.

**Entrance Requirements**

City & Guilds of London Institute Certificate in Printing Production Management (Departmental), or Full Technological Certificate in Printing, or Certificate in Supervisory Studies.

**Subjects**

Financial Aspects of Management; personnel management; production management.

**Objectives of Course**

City & Guilds of London Institute Certificate in Printing Production Management (Works).

**E180.****BOOK AND ARCHIVE RESTORATION**

The purpose of the course is to train students in the repair and presentation of books, documents, etc. It is of particular value to the staffs of hand bindaries, local record offices and those libraries concerned with the care of manuscripts and archives. Attendance is required on one evening per week. Students will be required to provide some of the materials used.

**E181.****BOOK PRODUCTION**

This is intended for those involved in the care of books particularly librarians, librarians under training, record office staff, etc. It will cover mechanised book production, hand bookbinding and book repair. Particular emphasis will be laid on the advantages and/or disadvantages of the various materials and binding styles used and their alternatives which may be used in the interest of economy. The techniques and terminology of forwarding finishing and decoration will be dealt with.

**E182.****PRINT FINISHING**

This course covers techniques and materials used in the production of books, magazines and the wide range of miscellaneous work handled in the print finishing department. Stress will be laid on hand and machine operations, e.g., wire stitching, sewing and folding, machine and hand feeding, gathering, glueing, mounting, etc.

**E185.****LINOTYPE, INTERTYPE, AND TELETYPESETTING**

This course is for senior composing apprentices and young journeymen who wish to become proficient in the operation of either keyboard. It covers daily maintenance routine and minor adjustments to the machines.

**E186.****MONOTYPE CASTER OPERATION**

A course for Monotype Caster Operators who are already employed as such in the printing industry. It covers all aspects of Monotype Casting including adjustments, alignment, etc.



**E187.****MONOTYPE KEYBOARD OPERATING**

A course for senior composing apprentices and young journeymen who wish to become efficient operators. The course covers table, tabular and bookwork setting and includes machine adjustments. It can be of one or two years duration.

**E191.****BOOKBINDING AND PRINT FINISHING, RETRAINING**

This is an evening course for post apprenticeship students with instruction in the latest techniques, and covers the whole range of materials and technology used in print finishing processes.

**E192.****LITHOGRAPHY AND PHOTO LITHOGRAPHY, RETRAINING**

This is an evening course for post apprenticeship students with instruction in the latest techniques of lithographic plate making and press operation. Craftsmen having completed apprenticeship to other printing processes, undergo retraining in lithographic printing.

**E195A.****PHOTOTYPESETTING**

This is a two-year evening course of practical training for suitably qualified personnel, on a wide range of phototypesetting and strike-on composition equipment.

Equipment includes: Pacesetter Mk IV, Linoscreen Visual Display Unit, Linocomp Direct Input Phototypesetter with electronic tape reader, Varicomp 1100 keyboard, Linotype Paul NJ200 keyboard, IBM 72 Composer, IBM Electronic Composer, Linofilm Keyboard and Photo Unit.

**E195B.****PAPER PASTE-UP**

This evening course for suitably qualified personnel, covers all aspects of newspaper paste-up including equipment, text and headline origination, grids and formats, methods of adhesion, corrections, illustration, advertisements, borders, colour spots, page assembly, proofing and subsequent processes.

**E200.****SCREEN PRINTING**

This is a one-year course designed to up-date the skills of journeymen already employed in Screen Printing. Students prepare for the Craft Certificate in Screen Printing, of the City and Guilds of London Institute. One evening (2½ hours) per week.



## EXAMINING BODIES

### External Examinations

The courses relate to the Examinations of the following bodies:

#### 1. Department of Education

##### (a) Technological Certificate Examinations in:

- (i) Building.
- (ii) Mechanical Engineering.
- (iii) Motor Car Engineering.
- (iv) Mathematics.

##### (b) Trade Certificate Examinations in:

- (i) Bricklaying and Masonry.
- (ii) Cabinetmaking.
- (iii) Carpentry and Joinery.
- (iv) Compositors' Work.
- (v) Letterpress Machine Work.
- (vi) Lithography and Photo Lithography.
- (vii) Bookbinding.
- (viii) Metalplate Work.
- (ix) Motor Car Engineering.
- (x) Painting and Decorating.
- (xi) Plasterers' Work.
- (xii) Plumbing.
- (xiii) Fitters' Work.
- (xiv) Turners' Work.
- (xv) Metal Fabrication.
- (xvi) Sheet Metalwork.

#### 2. Professional Institutions

- (i) Construction Surveyors' Institute
- (ii) Council of the Engineering Institutions.
- (iii) Institution of Engineers of Ireland.
- (iv) Institution of Mechanical Engineers.
- (v) Institution of Industrial Managers.
- (vi) Institution of Structural Engineers.
- (vii) Chartered Institute of Building Services.
- (viii) Institution of Municipal Engineers.
- (ix) The Institute of Building.
- (x) Institute of Quantity Surveyors.
- (xi) Royal Institution of Chartered Surveyors.
- (xii) Royal Institute of the Architects of Ireland.

#### 3. Other Bodies

- (i) British Federation of Master Printers.
- (ii) City & Guilds of London Institute.
- (iii) Department of Transport & Power. (Licence in Aeronautical Engineering).
- (iv) Institute of Clerks of Works in Ireland.
- (v) Institute of the Motor Industry.
- (vi) National Association of Paper Merchants.

## ACADEMIC STAFF

### SCHOOL OF ARCHITECTURE SURVEYING AND BUILDING

Head of School: Kevin Fox BArch FRIAI ARHA

#### Department of Architecture and Town Planning

Head of Department: John J O'Keeffe BArch FRIAI

Assistant Head: Liam Carlin MRIA ARIBA

Senior Lecturer: Anthony Johnson BArch MRIA ARIBA

#### Staff Lecturers

Albert J. Brady BArch FRIAI  
 Niall Brennan DipArch MRIA  
 Neil Downes BArch MRIA  
 Michael Fewer DipArch MRIA  
 Francis Ford MArch and UD DipArch MRIA  
 Robert Fowler DipArch MRIA  
 Sean Gaynor DipArch MRIA  
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 Fergus A Hogan DipArch MRIA  
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 Gerard Mitchell BArch MLA ARIBA  
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 Martin Ridge DipArch MRIA  
 Duncan Stewart BArch MRIA

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 Angel Bruton BArch MRIA ARIBA MSDI  
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### Department of Surveying + Building Technology

Head of Department: Eanna De Burca FRICS FCIQB

Assistant Head: Kevin Murnane ARIBA MRIA

Assistant Head (Urban Economics): Laurence

Liddle MA FRICS

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MSc(Econ) CertEd, DipStats

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Brendan Dunne MCIQB FIAS



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## SCHOOL OF ENGINEERING Department of Engineering Technology

Head of Department: Michael Murphy DipEng  
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## Department of Science + Mathematics

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Senior Lecturer: Jeremiah T Cotter MSc

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## SCHOOL OF TRADES

Head of School: Matthew P Farrell CEng MIEE  
MIEI

### Department of Engineering Trades

Head of Department: Robert L Eustace  
BSc(MechE)  
Assistant Head: Joseph Shiels

#### Whole-time Staff

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### Department of Aeronautical Engineering

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### Department of Automobile Engineering

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AMBIM  
Assistant Head: Timothy Giblin (Acting)

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David Butler — Rees MIMI MIRTE  
Michael Ryan  
Edwin Rynhart  
Stephen Simpson  
John Stone  
John Sweeney



### Department of Building Trades 'A'

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#### Whole-time Staff

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Patrick Cullen  
James P Doyle C & G Adv Craft FTC (C & G)  
Frederick Hosford Final C & G  
William Lacey  
Joseph Lawlor BA HDipEd FIBD  
Patrick McNally  
Gerard O'Toole

#### Part-time Staff

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Thomas Kavanagh  
Francis Lennon  
Martin Brennan  
Harry Lawless  
Derek Nicholson  
John Ryan  
Alan Smith  
Austin Wynne

### Department of Building Trade 'B'

Head of Department: Thomas Bridgeman  
FCSI FTC(Hons)

Assistant Head: Patrick Kelly Etc Htc (Acting)

#### Whole-time Staff

Andrew Dunne FTC (C & G)  
William Edwards  
Aidan Halpin ABICC Final C & G  
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James Kelly Final C & G  
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John McGuirk ABICC FTC (C & G)  
James S Stewart FTC (C & G)  
Thomas Tutty (C&G)  
James Wall (C&G)

#### Part-Time Staff

Barry Burke  
Brian Coyle  
Philip Cudey  
Patrick Heenan  
Peter Murphy  
Liam Walsh

### Department of Metal Fabrication

Head of Department: John G Bolton MWeldI  
FTC (C & G)

Assistant Head: Brendan Rooney, FTC (C&G)  
AWeldI Tech (C&G)

#### Whole-time Staff

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Thomas Colley Final C & G Tech  
Edward Donohue Final C & G  
Daniel Gahan Final C & G  
Brian Gilbert Final C & G  
William Jackson Final C & G Tech  
Denis Lynch Final C & G MIBF  
Gabriel McGreer Final C & G  
Michael McKeogh Final C&G Tech  
Paul McMullan Final C&G Tech  
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Joseph Quinn Final C & G AWeldI  
Paul Sherlock Final C & G Tech  
Joseph K Walsh FTC C & G MInstSME

#### Part-time Staff

James Armstrong Final C&G  
James F. Bartley Final C&G  
John Brady Final C&G  
William F. Carroll  
John Cassidy Final C&G  
Derek Cummins Final C&G Tech  
Joseph Doyle Final C&G  
Stanley Johns Final C&G  
John McCarney Final C&G  
George Mackie MWeldI  
Seamus O'Connell Final C&G  
Philip Shields Final C&G

### SCHOOL OF PRINTING + BOOK PRODUCTION

Head of School: Proinnsias O hEifearnain

BA HDipEd FTC (C & G) MIOP

Assistant Head of Department:

Joseph Reddin Lic in Printing (C & G)

AMIPtgm

#### Whole-time Staff

John Bennett BA FTC (C & G) FTC (Design)  
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Kenneth Devitt ACC (C & G)  
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Brendan Quinn Final C & G  
Kenneth Richards Final C & G  
Robert Sharpe Final C & G

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James Gormley  
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Richard McMahon  
Brendan Murphy  
Michael A.O'Connor  
Vincent O'Leary  
Sean Sills  
Anthony Thursby ACC (C&G)  
Karl Uhlemann

### CHAPLAINS

#### Senior Chaplain

Rev Dermot McKenna SJ

Rev Brendan Duddy SJ

Rev John Fitzpatrick CSSP

### School of Trades

Rev Kevin Phelan OFM

Rev John Hanley OFM

Rev Michael Foley SS CC

Rev Seamus Claffey OFM

### PHYSICAL EDUCATION

Michael C Doogan Dip in PhyEd

### LIBRARIAN

Miss Moira Fennell BA Dipl Lib T

### COLLEGE ADMINISTRATION

#### Secretary/Registrar

Michael J Marnane BComm DPA

#### Accounts Office

Liam Cooke Senior Clerk

#### Examinations Office

Thomas Foley Senior Clerk

#### Registrations/Admissions Office

Nuala McGlade Senior Clerk



DUBLIN INSTITUTE OF TECHNOLOGY  
CITY OF DUBLIN VOCATIONAL EDUCATION COMMITTEE  
THIRD LEVEL INSTITUTIONS



Location of College shown

- 1 College of Technology,  
Bolton Street,  
Dublin 1.  
Telephone 749913
- 2 College of Technology,  
Kevin Street,  
Dublin 8.  
Telephone 757541
- 3 Dublin College of Catering,  
and Hotel Management,  
Cathal Brugha Street,  
Dublin 1.  
Telephone 747886
- 4 College of Commerce,  
Rathmines,  
Dublin 6.  
Telephone 970666
- 5 College of Marketing,  
18, Parnell Square,  
Dublin 1.  
Telephone 742721
- 6 College of Music,  
Chatham Row,  
Dublin 2.  
Telephone 778903